# LDLR Database (second edition): new additions to the database and the software, and results of the first molecular analysis

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# ABSTRACT

Mutations in the LDL receptor gene (LDLR) cause familial hypercholesterolemia (FH), a common autosomal dominant disorder. The LDLR database is a computerized tool that has been developed to provide tools to analyse the numerous mutations that have been identified in the LDLR gene. The second version of the LDLR database contains 140 new entries and the software has been modified to accommodate four new routines. The analysis of the updated data (350 mutations) gives the following informations: (i) 63% of the mutations are missense, and only 20% occur in CpG dinucleotides; (ii) although the mutations are widely distributed throughout the gene, there is an excess of mutations in exons 4 and 9, and a deficit in exons 13 and 15; (iii) the analysis of the distribution of mutations located within the ligand-binding domain shows that 74% of the mutations in this domain affect a conserved amino-acid, and that they are mostly confined in the C-terminal region of the repeats. Conversely, the same analysis in the EGF-like domain shows that 64% of the mutations in this domain affect a non-conserved amino-acid, and, that they are mostly

confined in the N-terminal half of the repeats. The database is now accessible on the World Wide Web at http://www.umd.necker.fr

## THE LDL RECEPTOR AND HYPERCHOLESTEROLEMIA

The LDL receptor is a 160 kDa transmembrane glycoprotein ubiquitously distributed, playing a major role in cholesterol homeostasis (1). Impairement of LDL receptor activity results in the accumulation of LDL cholesterol in the circulation leading to familial hypercholesterolemia (FH). Affected individuals display arcus corneae, tendon xanthomas and premature symptomatic coronary heart disease (2). FH is an autosomal dominant disease, homozygotes being more severely affected than heterozygotes. FH is also one of the most common inherited disorders with frequencies of heterozygotes and homozygotes estimated to be 1/500 and 1/10<sup>6</sup>, respectively. In certain communities FH frequency is higher due to founder effects (3). The LDL receptor gene (LDLR) lies on the short arm of chromosome 19 (19p13.1-13.3) (4,5). It contains 18 exons encoding the six functional domains of the mature protein: Signal peptide, ligand-binding domain, epidermal growth factor (EGF) precursor like, O-linked sugar, transmenbrane and cytoplasmic (6). To date,

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444 mutations in the LDLR gene have been identified that are distributed as follows: 350 point mutations (77%), 68 major rearrangements (15%), 20 splice mutations (4%), 6 mutations in the promoter sequence (1%) (3,7).

#### THE LDLR DATABASE

This second version of the LDLR database contains 350 entries. Table 1 shows the 140 new entries of the database corresponding to mutations either recently published or contributed by the co-authors of this paper (8-31). It is not intended to replace primary publications, although it does contain unpublished data. As in the previous edition, mutation names are given according to Beaudet et al. (32) and are often followed by the name of the city or country from which the proband's family originated. For each mutation, information is provided at several levels: gene (exon and codon number, wild type and mutant codon, mutational event, mutation name), protein (wild type and mutant amino acid, affected domain, activity, mutation class), personal (ethnic background, age, sex, body mass index, familial history of coronary heart disease), clinical (values of plasma total cholesterol, LDL-cholesterol, HDL-cholesterol and triglycerids, presence or absence of xanthomas, arcus corneae and symptomatic coronary heart disease) and impact (private, recurrent, founder). We have included possible recurrent mutations (when no comparable haplotypes of the LDLR gene where available) in two instances: (i) when carriers of the same mutation were from distant ethnic or geographic background, and if not (ii) when clinical data were provided for the mutations to allow analysis of phenotypic variability. This last point concerns mutations W23X identified in probands of German-Canadian and German origin, 533ins8 and R395Q identified in probands from Germany, D200G identified in probands of Afrikaner and British origin, S285L identified in probands of Afrikaner and Dutch origin and P664L identified in probands of Belgian, Flemish-Walloon and Dutch origin. The ambiguity between recurrent and founder mutations will only be solved when a consensus will be reached on the polymorphic sites of the LDLR gene that should be systematically typed. Finally, since many teams now systematically screen the whole gene, two-mutations alleles are now being reported. Eleven of these appear in Table 2 (18,33–37). They are not included in the mutations file of the database since it cannot, at present, accomodate two mutations on a single allele.

# **NEWLY DEVELOPED SOFTWARE ROUTINES**

The software package contains routines for the analysis of the LDLR database that were developed with the 4th dimension<sup>R</sup> (4D) package from ABI. The purpose of the software is to facilitate the mutational analysis of the LDLR gene at the molecular level and to provide the tools to promote the analysis of relationships between phenotype and genotype. Initially, six specific routines were developed (3). Four new routines have been added to the software: (i) «Restriction enzyme» appears on the first page of the mutation record. If the mutation modifies a restriction site, the program shows a restriction map displaying the new or abolished site and the enzymes of interest (Table 1, Column I). (ii) «Amino acid type search» studies the mutations with respect to phylogenic conservation. In effect, the LDLR gene has been identified, sequenced and converted to protein sequence in four mammalian species [complete coding sequence of the

chinese hamster (SWISS-PROT accession number: p35950), the rabbit (p20063), the rat (p35952) and the mouse (p35951) LDL receptor] and in the xenope (38). The identity at the amino acid level between the human and chinese hamster, rabbit, rat, mouse and xenopus sequences are 81%, 79%, 77%, 76% and 70%, respectively. Therefore, the routine lists the mutations affecting conserved or non-conserved amino acids in the four mammals, in the xenope, or in all these sequences. (iii) «Phylogeny» studies the distibution of mutations (missense, stop and frameshift) in conserved amino acids between humans and mammals or vetebrates and in amino acids specifically found in the human protein. (iv) «Binary comparison» compares two mutation groups, each group being defined by distinct research criteria chosen from the database records (molecular, clinical, personal, etc.). The result can be displayed as either of several graphic representations (by amino acids, by exon, or by protein domain) of the distribution of the sorted mutations. Furthermore, the sorted mutations can also appear in a cumulated or detailed format (insertion, deletion, missense, nonsense).

#### **RESULTS OF THE FIRST MOLECULAR ANALYSIS**

The results of the first molecular analysis of the 350 point mutations of the database shows that 63% of the mutations are missense, and only 20% occur in CpG dinucleotides in opposition to the 32% observed in other human disease genes (39). The origin of this deficit is unknown. Although the mutations are widely distributed throughout the gene, there is an excess of mutations in exon 4 (P = 0.001) coding for the three central repeats of the ligand binding domain, and in exon 9 (P = 0.01) coding for the NH<sub>2</sub> end of the central region of the EGF precursor like domain, between repeats B and C. Conversely, there is a deficit of mutations in exon 13 (P = 0.001) coding for the COOH end of the central region of the EGF precursor like domain, between repeats B and C, and in exon 15 (P = 0.001) coding for the O-linked sugar domain. These mutation hot- or cold-spots cannot be attributed to a technological bias since most teams screened the 18 exons of the LDLR gene. The analysis of the distribution of mutations in the ligand-binding domain, after alignment of the seven repeats, shows that 74% of the mutations in this domain affect a conserved amino acid, and that they are mostly located in the C-terminal region of the repeats. Conversely, the same analysis in the EGF-like domain, after alignment of the three repeats, shows that 64% of the mutations in this domain affect a non-conserved amino acid, and that they are mostly clustered in the N-terminal half of the repeats. Finally, the investigation of genotype/phenotype correlations remains difficult since clinical data are usually incomplete in many published mutation reports. Furthermore, many mutations were identified in compound heterozygotes and the clinical data provided results from the combined effect of the two mutations. To overcome this shortage, we are currently developing an entry in the Web site that will facilitate the input of high quality clinical information for each mutation.

### DATABASE ON THE WEB

The LDLR database is now accessible through the World Wide Web at http://www.umd.necker.fr . Users of the database must cite this article. Finally, notification of omissions and errors in the

 Table 1. The 140 new mutation reports of the LDLR database

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|  
   | в<br>1  | <u>с</u>  
  | D<br>-21   | E<br>ATG  
   | F<br>TTG  
   | G  | H<br>No  
  | Nia III -  | J<br>M-21L  
   | K<br>Met  | L<br>Leu  | M<br>SP   
   | <u>N</u>  | 0<br>Htz   | P<br>Wa  | Q           | P R  | S. Afr. Indian  | T<br>26   |
|  
   | 2   | 91  
  | 10   | GAG   
   | TAG   
   | A+>T<br>G->T   | No   
  | Rmal+  | E10X  
   | Glu   | Stop  | LB1   
   | 1   | Htz  | Wa   |             | ?  | Flemish - Walloon   | 28  |
|  
   | 2   | 91  
  | 10   | GAG   
   | TAG   
   | G->T   | No   
  | Spe I +  | E10X  
   | Gíu   | Stop  | LB1   
   | 1   | Htz  | Wa   |             | ? - F 6/30   | Spanish   | 13  |
|  
   | 2   | 91  
  | 10   | GAG   
   | TAG   
   | G->T   | No   
  | Spe I +  | E10X - MOROCCO  
   | Glu   | Stop  | LB1   
   | 1   |  | Wa   |             | ?  | Jewish Ashkenazi  | 23  |
|  
   | 2   | 131   
  | 23   | TGG   
   | TAG   
   | G->A   | No   
  | BsiY I -   | W23X  
   | Trp   | Stop  | LB1   
   | 1   | Htz  | Wa   |             | ? - F  | Danish  | 27  |
|  
   | 2   | 131   
  | 23   | TGG   
   | TAG   
   | G->A   | No   
  | BsiY I -<br>BsiY II -  | W23X<br>W23X  
   | Trp   | Stop  | LB1<br>LB1  
   | 1   | Htz  | Wa<br>Wa   |             | ? - F?   | German<br>Belgian   | •4  |
|  
   | 2   | 131   
  | 23<br>26   | GAT   
   | AAT   
   | G->A<br>G->A   | No<br>Yes  
  | DSIT II-   | D26N - HYOGO  
   | Trp<br>Asp  | Stop<br>Asn   | LB1   
   |   | Htz  | Wa   |             | P  | Japanese  | 1.3   |
|  
   | 2   | 148   
  | 29   | GCT   
   | ACT   
   | G->A   | Yes  
  | Dra III +  | A29T  
   | Ala   | Thr   | LB1   
   |   | Htz  | Wa   | -           | ?  | Austrian  | •2  |
|  
   | 2   | 148   
  | 29   | GCT   
   | ACT   
   | G->A   | Yes  
  | Dra III +  | A29T  
   | Ala   | Thr   | LB1   
   |   | Htz  | Wa   |             | ?  | S. Afr. Coloured  | 1   |
|  
   | 2   | 166   
  | 35   | TCT   
   | CCT   
   | T->C   | No   
  | Hae III +  | S35P  
   | Ser   | Pro   | LB1   
   |   |  | Wa   |             | F 2/742  | Norwegian   | 2.1   |
|  
   | 3   | 232   
  | 57   | CGT   
   | TGT   
   | C->T   | Yes  
  | Hae III -  | R57C  
   | Arg   | Cys   | LB2   
   |   | <u> </u>   |  |             | P  | British   | 8   |
|  
   | 3   | 232<br>253  
  | 57<br>64   | CGT   
   | TGT<br>TAG  
   | <u>C-&gt;T</u><br>C->T   | Yes  
  | Hae III -  | R57C<br>Q64X  
   | Arg<br>Gln  | Cys<br>Stop   | LB2<br>LB2  
   |   | Htz  | Wa   |             | γ<br>γ   | S. Afr. Indian<br>S. Afr. Jewish  | 12  |
|  
   | 3   | 259   
  | 66   | TGG   
   | GGG   
   | T->G   | No   
  | BsiYI+   | W66G  
   | Trp   | Gly   | LB2   
   | · · · · · ·   | Htz  | Wa   |             | F  | Danish  | 27  |
|  
   | 3   | 259   
  | 66   | TGG   
   | GGG   
   | T->G   | No   
  | BsiY I +   | W66G  
   | Trp   | Gly   | LB2   
   | 3 or 5  |  | Wa   |             | ?  | German  | • 4   |
|  
   | 3   | 259   
  | 66   | TGG   
   | GGG   
   | T->G   | No   
  | BsiY I +   | W66G  
   | Trp   | Gly   | LB2   
   |   | Hmz  | ab   | ?           | ?  | Afrikaner   | • 1   |
|  
   | 3   | 260   
  | 66   | TGG   
   | TAG   
   | G->A   | No   
  | Xba1+  | W66X  
   | Trp   | Stop  | LB2   
   | <u> </u>  |  |  |             | P  | British   | 8   |
|  
   | 3<br>3  | 266   
  | 68   | TGC   
   | TAC<br>AAT  
   | G->A<br>G->A   | No   
  | Rsal+  | C68Y<br>D69N  
   | Cys   | Tyr   | LB2<br>LB2  
   | <u> </u>  | <u> </u>   |  |             | P  | British<br>British  | 8   |
|  
   | 3   | 268<br>283  
  | 69<br>74   | GAT<br>TGC  
   | GGC   
   | T->G   | Yes<br>No  
  |  | C74G  
   | Asp<br>Cys  | Asn<br>Gly  | LB2   
   | -   | Htz  | Wa   |             |  | Spanish   | 18  |
|  
   | 3   | 301   
  | 80   | GAG   
   | del1a   
   | Stop at 204  |  
  |  | 301delG   
   | Glu   | Fr.   | LB2   
   |   |  |  |             | F 3/791  | British   | 8   |
|  
   | 3   | 311   
  | 83   | TGT   
   | ΠΤ  
   | G->T   | No   
  |  | C83F  
   | Cys   | Phe   | LB2   
   |   | Htz  | Wa   |             | P  | British   | 1   |
|  
   | 3-4   | 313   
  | 84   | 000   
   | TCC   
   | C->T   | No   
  |  | P84S  
   | Pro   | Ser   | LB3   
   | I   | Htz  | Wa   |             | <u>Р</u><br>Р  | Finnish   | 11  |
|  
   | 4   | 335<br>337  
  | 91<br>92   | GAC   
   | del10b<br>TAG   
   | Stop at 201<br>G->T  | No   
  | Rma I +  | 335del10<br>E92X  
   | Asp<br>Glu  | Fr.<br>Stop   | LB3<br>LB3  
   | 1   | Htz<br>Htz   | Wa   |             | γ<br>γ   | Danish<br>Flemish   | 9<br>28   |
|  
   | 4   | 344   
  | 94   | Cac   
   | CAC   
   | G->A   | Yes  
  | 1100017  | R94H - FUKUOKA  
   | Arg   | His   | LB3   
   | ·'  | Htz  | Wa   |             | P  | Japanese  | 1.3   |
|  
   | 4   | 347   
  | 95   | TGC   
   | TTC   
   | G->T   | No   
  | Fnu4H1-  | C95F  
   | Cys   | Phe   | LB3   
   |   | Htz  | Wa   |             | P  | Belgian   | 2   |
| 252 4  
   | 4   | 429   
  | 122  | TGC   
   | TGA   
   | C->A   | No   
  | Age I +  | C122X   
   | Cys   | Stop  | LB3   
   | 1   | Htz  | Wa   |             | F 13/70 (Wa.) 3/80 (Fl.)   | Flemish - Walloon   | 15  |
|  
   | 4   | 460   
  | 133  | CAG   
   | TAG   
   | C->T   | No   
  | Rma I +  | Q133X   
   | Gln   | Stop  | LB4   
   |   | Htz  | Wa   |             | P  | Spanish   | 18  |
| 325 4  
   | 4   | 465   
  | 134  | TGC   
   | TGA<br>TAC  
   | C->A   | No   
  |  | C134X<br>C139Y  
   | Cys   | Stop  | LB4<br>LB4  
   |   |  | Wa   |             | F 12/742   | Norwegian<br>British  | 21  |
|  
   | 4   | 479   
  | 139  | ATC   
   | ACC   
   | G->A<br>T->C   | No<br>No   
  |  | C139Y<br>I140T  
   | Cys   | Tyr<br>Thr  | LB4<br>LB4  
   |   | Htz  | Wa   | ···· ···.   | Р  | Costa Rican   | *1  |
| 276 .4   
   |   | 500   
  | 146  | TGC   
   | TAC   
   | G->A   | No   
  |  | C146Y   
   | Cys   | Tyr   | LB4   
   |   | Htz  | Wa   |             | Р  | German  | 4   |
| 229 4  
   | 4   | 502   
  | 147  | GAC   
   | AAC   
   | G->A   | Yes  
  |  | D147N   
   | Asp   | Asn   | LB4   
   |   |  |  |             | Р  | British   | 8   |
|  
   | 4   | 518   
  | 152  | TGC   
   | del1b   
   | Stop at 204  |  
  | Taq I +  | 518delG   
   | Cys   | Fr.   | LB4   
   | 1   | Htz  | Wa   |             | F 4/30   | Spanish   | 13  |
|  
   | 4   | 518   
  | 152  | TGC   
   | TAC   
   | G->A   | No<br>No   
  | - Baby I   | C152Y<br>C152W  
   | Cys   | Tyr   | LB4<br>LB4  
   |   | Htz<br>Htz   | Wa<br>Wa   |             | Р<br>Р   | German<br>German  | *4  |
|  
   | $\frac{4}{4}$   | 519<br>523  
  | 152<br>154   | GAT   
   | TGG<br>TAT  
   | C->G<br>G->T   | No<br>No   
  | BsiY I +   | D154Y   
   | Cys<br>Asp  | Trp<br>Tyr  | LB4<br>LB4  
   | ·   | ritz   | Wa   |             | Р  | Norwegian   | 21  |
|  
   | 4   | 523   
  | 154  | GGC   
   | GTC   
   | G->T   | No   
  | BspW I -   | G155V   
   | Gly   | Val   | LB4<br>LB4  
   |   | Htz  | Wa   |             | P  | Belgian   | 2   |
|  
   | 4   | 530   
  | 156  | TCG   
   | TTG   
   | C->T   | Yes  
  | Bopint   | S156L   
   | Ser   | Leu   | LB4   
   |   | Htz  | Wa   |             | R  | Spanish   | 18  |
|  
   | 4   | 533   
  | 157  | GAT   
   | ins8b   
   | Stop at 178  |  
  |  | 533ins8   
   | Asp   | Fr.   | LB4   
   |   | Htz  | Wa   |             | ?-F  | German  | • 5   |
|  
   | 4   | 554   
  | 164  | AGG   
   | ins1b   
   | Stop at 178  |  
  |  | 553insG   
   | Arg   | Fr.   |   
   |   | Htz  | Wa   |             | P  | German  | *5  |
|  
   | 4   | 556   
  | 165  | GGT   
   | del1a   
   | Stop at 204  |  
  |  | 556delG - ISRAEL  
   | Gly   | Fr.   |   
   |   |  | ab   | 65          | P .  | Arab Moslem   | 23  |
|  
   | $\frac{4}{4}$   | 558<br>617  
  | 165<br>185   | AGT   
   | ins1c<br>del1b  
   | Stop at 178  |  
  |  | 558insG<br>617delG  
   | Gly<br>Ser  | Fr.<br>Fr.  | LB5   
   | <u> </u>  | Htz<br>Htz   | Wa<br>Wa   |             | P  | German<br>French  | 19  |
|  
   | 4   | 646   
  | 195  | TGT   
   | del1b   
   | Stop at 204<br>Stop at 204   |  
  |  | 646delT   
   | Cys   | Fr.   | LB5   
   |   | 1112   | vva  |             | P  | British   | 8   |
|  
   | 4   | 661   
  | 200  | GAC   
   | AAC   
   | G->A   | Yes  
  |  | D200N   
   | Asp   | Asn   | LB5   
   |   | Htz  | Wa   |             | P  | German  | *5  |
|  
   | 4   | 662   
  | 200  | GAC   
   | GGC   
   | A->G   | No   
  | Msp I +  | D200G   
   | Asp   | Gly   | LB5   
   | 2B  | Htz  | Wa   |             | ?  | Spanish   | 18  |
|  
   | 4   | 662   
  | 200  | GAC   
   |   
   | A->G   | No   
  | Msp I +  | D200G   
   | Asp   | Gly   | LB5   
   | 2B  | Htz  | Wa   |             | ?  | German  | •4  |
| 280 4  
   | 4   | 662   
  | 200  | GAC   
   | GGC   
   |  |  
  |  |   
   |   |   |   
   |   |  |  |             | ? - F  | Afrikaner   |   |
|  
   |   | 0.04  
  | 000  |   
   |   
   | A->G   | No   
  | Msp I +  | D200G   
   | Asp   | Gly   | LB5   
   |   | Htz  | Wa   |             |  |   | •1  |
| 243 4  
   | 4   | 661   
  | 200  | GAC   
   | TAC   
   | G->T   | No   
  | Msp 1 +  | D200G   
   | Asp   |   | LB5<br>LB5  
   |   | Htz  | Wa<br>Wa   |             | ?  | S. Afr. Indian  | 12  |
|  
   |   |   
  |  | GAC   
   |   
   | G->T   | No   
  |  |   
   | Asp   | Gly   |   
   | N   |  |  | Q           |  |   | 12<br>T   |
| A 1  
   | 4<br>B<br>4   | 661<br>C<br>661   
  | 200<br>D<br>200  |   
   | TAC   
   |  |  
  |  | D200Y<br>J<br>D200Y   
   |   | Gly<br>Tyr  | LB5<br>M<br>LB5   
   | N   | Htz<br>O<br>Htz  | Wa<br>P<br>Wa  | Q           | ?<br>R<br>?  | S, Afr. Indian<br>S<br>Spanish  | 12<br><b>T</b><br>18  |
| A 1<br>265 4<br>285 4  
   | B<br>4<br>4   | C<br>661<br>671   
  | D<br>200<br>203  | GAC<br>E<br>GAC<br>GAC  
   | F<br>TAC<br>GCC   
   | G->T<br>G<br>G->T<br>A->C  | No<br>H  
  |  | D200Y<br>J<br>D200Y<br>D203A  
   | Asp<br>K<br>Asp<br>Asp  | Gly<br>Tyr<br>L<br>Tyr<br>Ala   | LB5<br>M<br>LB5<br>LB5  
   |   | Htz<br>O<br>Htz<br>Htz   | Wa<br>P<br>Wa<br>Wa  | Q           | ?<br>R<br>?<br>P   | S, Afr. Indian<br>S<br>Spanish<br>S, Afr. Coloured  | 12<br>T<br>18<br>••1  |
| A 265 4<br>285 4<br>250 4  
   | B<br>4<br>4<br>4  | C<br>661<br>671<br>681  
  | D<br>200<br>203<br>206   | GAC<br>GAC<br>GAC<br>GAC  
   | F<br>TAC<br>GCC<br>ins7c  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216   | No<br>H<br>No  
  |  | D200Y<br>J<br>D200Y<br>D203A<br>681ins7   
   | Asp<br>K<br>Asp<br>Asp  | Gly<br>Tyr<br>L<br>Tyr<br>Ala<br>Fr.  | LB5<br>LB5<br>LB5<br>LB5  
   | N<br>1  | O<br>Htz<br>Htz<br>Htz   | Wa<br>Wa<br>Wa<br>Wa   | Q           | ?<br>R<br>?<br>P<br>P  | S. Afr. Indian<br>S<br>Spanish<br>S. Afr. Coloured<br>French-Canadian   | 12<br>T<br>18<br>**1<br>14  |
| A 4<br>265 4<br>285 4<br>250 4<br>239 4  
   | B<br>4<br>4<br>4<br>4   | C<br>661<br>671<br>681<br>681   
  | D<br>200<br>203<br>206<br>206  | GAC<br>GAC<br>GAC<br>GAC<br>GAC   
   | F<br>TAC<br>CC<br>ins7c<br>ins8c  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins  | No<br>H<br>No<br>No  
  |  | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins8  
   | Asp<br>K<br>Asp<br>Asp<br>Asp   | Giy<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.  | M<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5  
   | 1   | Htz<br>O<br>Htz<br>Htz<br>Htz<br>Htz                               | Wa<br>Wa<br>Wa<br>Wa<br>Wa   | Q           | ?<br>?<br>P<br>P<br>P<br>P   | S. Afr. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican   | 12<br><b>T</b><br>18<br>••1<br>14<br>10   |
| A         I           265         4           285         4           250         4           239         4           245         4  
   | B<br>4<br>4<br>4<br>4<br>4<br>4   | C<br>661<br>671<br>681<br>681<br>682  
  | D<br>200<br>203<br>206<br>206<br>207   | GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC  
   | F<br>TAC<br>GOC<br>ins7c<br>ins8c<br>AAG  
   | G->T<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A   | No<br>H<br>No<br>No<br>Yes   
  | I<br>Hae III +   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins8<br>E207K   
   | Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Glu  | Gly<br>Tyr<br>L<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys  | LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5  
   | 1<br>2B   | O<br>Htz<br>Htz<br>Htz   | Wa<br>Wa<br>Wa<br>Wa<br>Wa   | Q           | ?<br>R<br>?<br>P<br>P  | S, Afr. Indian<br>S<br>Spanish<br>S, Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S, Afr. Indian  | 12<br>T<br>18<br>**1<br>14  |
| A         I           265         4           285         4           250         4           239         4           245         4           336         4  
   | B<br>4<br>4<br>4<br>4   | C<br>661<br>671<br>681<br>681   
  | D<br>200<br>203<br>206<br>206  | GAC<br>GAC<br>GAC<br>GAC<br>GAC   
   | F<br>TAC<br>CC<br>ins7c<br>ins8c  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins  | No<br>H<br>No<br>No  
  |  | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins8  
   | Asp<br>K<br>Asp<br>Asp<br>Asp   | Giy<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.  | M<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5  
   | 1   | Htz<br>O<br>Htz<br>Htz<br>Htz<br>Htz                               | Wa<br>Wa<br>Wa<br>Wa<br>Wa   | Q           | ?<br>R<br>?<br>P<br>P<br>P<br>P<br>? - F 2/7   | S. Afr. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican   | 12<br><b>T</b><br>18<br><b>**1</b><br>14<br>10<br>12<br>23<br>28  |
| A         I           265         4           285         4           250         4           239         4           245         4           336         4           354         5  
   | B<br>4<br>4<br>4<br>4<br>4<br>4<br>4  | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736  
  | D<br>200<br>203<br>206<br>206<br>207<br>207<br>223<br>225  | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAG<br>TCT<br>GGA   
   | F<br>TAC<br>QCC<br>ins7c<br>ins8c<br>AAG<br>CAG   
   | G->T<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>C->A<br>Stop at 263  | No<br>H<br>No<br>No<br>Yes<br>No<br>No   
  | I<br>Hae III +<br>EcoR II +  | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins7<br>681ins7<br>E207K<br>E207C - IRAQ<br>S223Y<br>738delG  
   | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Ser<br>Gly   | Giy<br>Tyr<br>L<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.   | M<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6   
   | 1<br>2B   | Htz<br>O<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz                 | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>? - F 2/7<br>?<br>P<br>P<br>P  | S. Afr. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S. Afr. Indian<br>Jewish Ashkenazi<br>Flemish<br>British   | 12<br><b>T</b><br>18<br>•••1<br>14<br>10<br>12<br>23<br>28<br>8   |
| A         I           265         4           285         4           250         4           245         4           336         4           336         4           231         4           255         5  
   | B<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5  | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757   
  | D<br>200<br>203<br>206<br>206<br>207<br>207<br>223<br>225<br>232   | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAG<br>GAG<br>CAG<br>GAG<br>CGA   
   | F<br>TAC<br>GOC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>del1a<br>TGG  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>G->C<br>C->A<br>Stop at 263<br>C->T   | No<br>H<br>No<br>No<br>Yes<br>No<br>No<br>Yes  
  | I<br>Hae III +   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins8<br>E207K<br>E2070 - IRAQ<br>S223Y<br>736delG<br>R232W  
   | Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Ser<br>Gly<br>Arg   | Gly<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Trp  | LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6   
   | 1<br>2B   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz        | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   | Q<br>       | ?<br>P<br>P<br>P<br>P<br>?<br>?<br>?<br>P<br>P<br>P<br>P<br>P  | S. Afr. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S. Afr. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian   | 12<br><b>T</b><br>18<br>**1<br>14<br>10<br>12<br>23<br>28<br>8<br>*2  |
| A         I           265         4           285         4           239         4           336         4           336         4           231         5           235         5           358         5  
   | B<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5<br>5   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767  
  | D<br>200<br>203<br>206<br>207<br>207<br>223<br>225<br>232<br>235   | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAG<br>GAG<br>TCT<br>GGA<br>OGG<br>GAC  
   | F<br>TAC<br>GCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>del1a<br>TGG<br>GAG   
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>G->C<br>C->A<br>Stop at 263<br>C->T<br>A->G   | No<br>H<br>No<br>No<br>Yes<br>No<br>Yes<br>No  
  | I<br>Hae III +<br>EcoR II +  | D200Y<br>J<br>D203A<br>681ins7<br>681ins8<br>E2070 - IRAQ<br>S223Y<br>736delG<br>R232W<br>D235E   
   | Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Glu<br>Ser<br>Gly<br>Arg<br>Asp  | Gly<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Trp<br>Glu   | M<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6  
   | 1<br>2B   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>?<br>?<br>P<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?   | S. Air. Indian<br>Spanish<br>S. Air. Coloured<br>French-Canadian<br>Costa Rican<br>S. Air. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish  | 12<br><b>T</b><br>18<br><b>**1</b><br>14<br>10<br>12<br>23<br>28<br>8<br>*2<br>25   |
| A         I           265         2           250         2           250         2           239         2           245         2           336         2           354         5           255         5           358         5           255         6           256         6  
   | B<br>4<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5<br>5<br>6   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>828   
  | D<br>200<br>203<br>206<br>207<br>207<br>223<br>225<br>232<br>235<br>255  | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAG<br>CAG<br>CAG<br>CAG<br>CAG   
   | F<br>TAC<br>GOC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>del1a<br>TGG<br>GAG<br>TGA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>Stop at 263<br>C->T<br>A->G<br>C->A   | No<br>H<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>No  
  | I<br>Hae III +<br>EcoR II +  | D200Y<br>J<br>D203A<br>681ins7<br>681ins7<br>681ins8<br>E207K<br>E207C - IRAQ<br>S223Y<br>738del6<br>R232W<br>D235E<br>C255X  
   | Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Ser<br>Gly<br>Arg<br>Asp<br>Cys   | Gly<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Trp<br>Glu<br>Stop   | LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7  
   | 1<br>2B   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>W  |             | ?<br>P<br>P<br>P<br>P<br>?<br>?<br>?<br>P<br>P<br>P<br>P<br>P  | S. Afr. Indian<br>S<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S. Afr. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian   | 12<br><b>T</b><br>18<br>•••1<br>14<br>10<br>12<br>23<br>28<br>8<br>••2<br>25<br>••2   |
| A         I           265         2           285         2           285         2           239         2           245         2           336         2           354         2           231         2           255         3           358         2           256         6           353         6  
   | B<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5<br>5<br>6<br>6<br>6  | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>828<br>829  
  | D<br>200<br>203<br>206<br>207<br>207<br>223<br>225<br>232<br>235<br>255<br>256   | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAG<br>GAG<br>CAG<br>CAG<br>CAG   
   | F<br>TAC<br>GOC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>del1a<br>TGG<br>GAG<br>TGA<br>AAG   
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>Stop at 263<br>C->T<br>A->G<br>C->A<br>G->A<br>G->A   | No<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>No<br>Yes  
  | I<br>Hae III +<br>EcoR II +  | D200Y<br>J<br>D203A<br>681ins7<br>681ins8<br>E2070 - IRAQ<br>S223Y<br>736delG<br>R232W<br>D235E   
   | Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Glu<br>Ser<br>Gly<br>Arg<br>Asp  | Gly<br>Tyr<br>Ala<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Trp<br>Glu<br>Stop<br>Lys   | M<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6  
   | 1<br>2B   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>P<br>F 2/7<br>?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>F 2/508   | S. Air. Indian<br>Spanish<br>S. Air. Coloured<br>French-Canadian<br>Costa Rican<br>S. Air. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish  | 12<br><b>T</b><br>18<br><b>**1</b><br>14<br>10<br>12<br>23<br>28<br>8<br>*2<br>25   |
| A         I           265         2           285         2           239         2           245         2           336         2           231         2           255         2           358         2           255         3           358         2           356         3           303         6  
   | B<br>4<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5<br>5<br>6   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>828   
  | D<br>200<br>203<br>206<br>207<br>207<br>223<br>225<br>232<br>235<br>255  | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAG<br>CAG<br>CAG<br>CAG<br>CAG   
   | F<br>TAC<br>GOC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>del1a<br>TGG<br>GAG<br>TGA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>Stop at 263<br>C->T<br>A->G<br>C->A   | No<br>H<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>No  
  | I<br>Hae III +<br>EcoR II +  | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins7<br>E207K<br>E207K HAQ<br>S223Y<br>736delG<br>R232W<br>D235E<br>C255X<br>E256K<br>E256K<br>H264Q<br>E267K   
   | Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Ser<br>Gly<br>Arg<br>Asp<br>Cys<br>Glu  | Gly<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Trp<br>Glu<br>Stop   | LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7<br>LB7  
   | 1<br>2B   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>?<br>?<br>?<br>?<br>?<br>P<br>P<br>P<br>?<br>?<br>P<br>P<br>P<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?   | S, Air, Indian<br>S<br>Spanish<br>S, Air, Coloured<br>French-Canadian<br>Costa Rican<br>S, Air, Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian<br>Walloon<br>Belgian<br>German   | 12<br><b>T</b><br>18<br>••1<br>14<br>10<br>12<br>23<br>28<br>8<br>•2<br>25<br>•2<br>28<br>•2<br>•2<br>•2<br>•2<br>•5  |
| A         I           266         2           285         4           250         4           239         4           245         4           354         2           255         2           354         2           255         2           358         6           303         6           303         6           303         6           303         6           303         6           303         6           253         6  
   | B         4           4         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>828<br>829<br>855<br>862<br>902   
  | D<br>200<br>203<br>206<br>207<br>207<br>223<br>225<br>235<br>235<br>255<br>255<br>256<br>264<br>267<br>280   | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAG<br>GAC<br>TCT<br>GGA<br>GAC<br>TCC<br>GAG<br>GAC<br>GAC<br>GAC  
   | TAC<br>F<br>TAC<br>QCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>CAG<br>GAG<br>GAG<br>GAG<br>GAG<br>CAA<br>AAA<br>AAA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>C->A<br>Stop at 263<br>C->T<br>A->G<br>C->A<br>G->A<br>G->A<br>G->A<br>C->A<br>G->A<br>G->A   | No<br>No<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>Yes<br>No  
  | I<br>Hae III +<br>EcoR II +<br>Msp I -   | D200Y<br>J<br>D203A<br>681ins7<br>681ins8<br>E2070 - IRAQ<br>S223Y<br>736delG<br>R232W<br>D235E<br>C255X<br>E256K<br>E256K<br>H264Q<br>E267K<br>D280G   
   | Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Ser<br>Gly<br>Arg<br>Asp<br>Cys<br>Glu<br>His<br>Glu<br>Asp  | Gly<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Trp<br>Glu<br>Stop<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys  | LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7   
   | 1<br>2B<br>2B   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>P<br>?<br>?<br>P<br>P<br>P<br>P<br>?<br>?<br>P<br>P<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?   | S. Afr. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S. Afr. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek   | 12<br><b>T</b><br>18<br>••1<br>14<br>10<br>12<br>23<br>28<br>8<br>•2<br>25<br>•2<br>28<br>•2<br>5<br>16   |
| A         I           265         4           250         4           250         4           239         4           239         4           336         4           336         4           231         4           255         2           358         5           353         6           303         6           341         6           255         2           303         6           341         6           253         6           294         6  
   | B         4           4         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6           6         6   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>828<br>829<br>855<br>862<br>902<br>910  
  | D<br>200<br>203<br>206<br>207<br>223<br>225<br>232<br>235<br>255<br>255<br>256<br>264<br>267<br>280<br>283   | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAG<br>CAG<br>GAG<br>CAC<br>GAG<br>GAC<br>GAC   
   | TAC<br>F<br>TAC<br>QCC<br>insRc<br>AAG<br>CAG<br>TAT<br>del1a<br>TGG<br>GAG<br>TGA<br>AAG<br>CAA<br>AAA<br>CAA<br>AAA<br>QCC<br>AAC   
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>C->A<br>Stop at 263<br>C->T<br>A->G<br>C->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A   | No<br>No<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>Yes<br>No<br>Yes<br>No<br>No  
  | I<br>Hae III +<br>EcoR II +  | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins7<br>681ins7<br>681ins7<br>E2070 - IRAQ<br>S223Y<br>738delG<br>R232W<br>D238E<br>C255X<br>E256K<br>E256K<br>E256K<br>H264Q<br>E267K<br>D280G<br>D283N  
   | Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Ser<br>Gly<br>Arg<br>Asp<br>Cys<br>Glu<br>His<br>Glu<br>Asp  | Gly<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Trp<br>Glu<br>Stop<br>Lys<br>Gln<br>Lys<br>Gly<br>Asn  | LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7   
   | 1<br>2B<br>2B   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Afr. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S. Afr. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek<br>Irish   | 12<br>T<br>18<br>···1<br>14<br>10<br>12<br>23<br>28<br>8<br>··2<br>25<br>·2<br>28<br>··2<br>28<br>··2<br>.5<br>16<br>··3  |
| A         I           265         4           250         4           250         4           239         4           239         4           336         4           336         4           231         4           255         2           358         5           353         6           303         6           341         6           255         2           303         6           341         6           253         6           294         6  
   | B         4           4         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>828<br>829<br>855<br>862<br>902   
  | D<br>200<br>203<br>206<br>207<br>207<br>223<br>225<br>235<br>235<br>255<br>255<br>256<br>264<br>267<br>280   | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC   
   | TAC<br>F<br>TAC<br>QCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>CAG<br>GAG<br>GAG<br>GAG<br>GAG<br>CAA<br>AAA<br>AAA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>C->A<br>Stop at 263<br>C->T<br>A->G<br>C->A<br>G->A<br>G->A<br>G->A<br>C->A<br>G->A<br>G->A   | No<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>Yes<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>No  
  | I<br>Hae III +<br>EcoR II +<br>Msp I -   | D200Y<br>J<br>D203A<br>681ins7<br>681ins7<br>681ins8<br>E2070 - IRAQ<br>S223Y<br>738delG<br>R232W<br>D235E<br>C255X<br>E256K<br>H264Q<br>E267K<br>D280G<br>D283N<br>S285L   
   | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Ser<br>Gly<br>Asp<br>Cys<br>Glu<br>His<br>Glu<br>Asp<br>Cys<br>Ser<br>Ser   | Gly<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Glu<br>Stop<br>Lys<br>Gly<br>Gly<br>Asn<br>Leu   | LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7  
   | 1<br>2B<br>2B<br>   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>W  |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Afr. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S. Afr. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek   | 12<br><b>T</b><br>18<br>••1<br>14<br>10<br>12<br>23<br>28<br>8<br>•2<br>25<br>•2<br>28<br>•2<br>5<br>16   |
| A         I           265         4           285         4           239         4           336         4           336         4           231         4           255         4           255         5           358         5           255         5           353         6           353         6           353         6           255         2           256         6           303         6           353         6           253         6           253         6           278         6           278         6  
   | B         4           4         4           4         4           5         5           5         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>828<br>829<br>855<br>862<br>902<br>910<br>917<br>917  
  | D<br>200<br>203<br>206<br>207<br>223<br>225<br>235<br>255<br>255<br>255<br>255<br>256<br>264<br>267<br>280<br>283<br>285<br>285  | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAG<br>GAG<br>GAG<br>GAG<br>GAC<br>CAC<br>GAA<br>GAA  
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>TAT<br>TGG<br>GAG<br>GAG<br>GAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAA<br>CAA<br>TTA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>C->A<br>Stop at 263<br>C->T<br>A->G<br>C->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>C->A<br>C->A<br>C->A   | No<br>No<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>Yes<br>No<br>Yes<br>No<br>No  
  | I<br>Hae III +<br>EcoR II +<br>Msp I -   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins7<br>681ins7<br>68207C - IRAQ<br>S223Y<br>736delG<br>R232W<br>D235E<br>C255X<br>E256K<br>H264Q<br>E267K<br>D280G<br>D283N<br>S285L   
   | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Ser<br>Gly<br>Asp<br>Cys<br>Glu<br>His<br>Glu<br>Asp<br>Ser<br>Ser   | Gly<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Cyr<br>Gln<br>Tyr<br>Fr.<br>Trp<br>Glu<br>Stop<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gly<br>Asn<br>Lys<br>Cln<br>Lys   | LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7   
   | 1<br>2B<br>2B   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Afr. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S. Afr. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek<br>Irish<br>German  | 12<br><b>T</b><br>18<br>••1<br>14<br>10<br>12<br>23<br>28<br>•2<br>25<br>•2<br>28<br>•2<br>28<br>•2<br>55<br>•2<br>28<br>•2<br>55<br>•5<br>16<br>•3<br>29   |
| A         I           265         4           285         4           285         4           239         4           245         4           336         4           336         4           255         2           336         4           255         3           354         4           256         2           358         4           256         3           353         6           303         6           341         6           278         6           278         6           272         6           232         6  
   | B         4           4         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6           6         6   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>828<br>829<br>855<br>862<br>902<br>910  
  | D<br>200<br>203<br>206<br>207<br>223<br>225<br>232<br>235<br>255<br>255<br>256<br>264<br>267<br>280<br>283   | E<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC   
   | TAC<br>F<br>TAC<br>QCC<br>insRc<br>AAG<br>CAG<br>TAT<br>del1a<br>TGG<br>GAG<br>TGA<br>AAG<br>CAA<br>AAA<br>CAA<br>AAA<br>QCC<br>AAC   
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>C->A<br>Stop at 263<br>C->T<br>A->G<br>C->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A   | No<br>H<br>No<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>No<br>No<br>No<br>No   
  | I<br>Hae III +<br>EcoR II +<br>Msp I -   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins8<br>E2070 - IRAQ<br>S223Y<br>736delG<br>R232W<br>D235E<br>C255X<br>E256K<br>H264Q<br>E267K<br>D280G<br>D283N<br>S285L<br>S285L<br>S285L<br>S31delAA<br>C292Y  
   | Asp<br>K<br>Asp<br>Asp<br>Glu<br>Glu<br>Ser<br>Glu<br>Ser<br>Glu<br>Ser<br>Glu<br>His<br>Glu<br>Asp<br>Glu<br>Asp<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser  | Giy<br>Tyr<br>Ala<br>Fr.<br>Lys<br>Gin<br>Tyr<br>Fr.<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Fr.<br>Tyr<br>Fr.<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr  | LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7   
   | 1<br>2B<br>2B<br>   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>W  |             | ?<br>P<br>P<br>P<br>P<br>P<br>? - F 277<br>?<br>P<br>P<br>P<br>P<br>P<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?<br>?   | S. Air. Indian<br>Spanish<br>S. Air. Coloured<br>French-Canadian<br>Costa Rican<br>S. Air. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek<br>Irish<br>German<br>Afrikaner<br>British<br>British   | 12<br>T<br>18<br>···1<br>14<br>10<br>12<br>23<br>28<br>8<br>··2<br>25<br>·2<br>28<br>··2<br>28<br>··2<br>28<br>··2<br>·2<br>28<br>··1<br>·1<br>·1<br>·1<br>·1<br>·1<br>·1<br>·1<br>·1<br>·  |
| A         I           265         4           285         4           285         4           245         4           245         4           336         2           336         2           336         2           255         5           358         2           255         6           303         6           203         2           256         6           303         6           204         6           279         6           232         6           233         6           233         6           233         6           233         6           234         5  
   | B         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>828<br>829<br>855<br>862<br>902<br>910<br>917<br>917<br>931<br>938<br>938<br>979  
  | D<br>2003<br>206<br>207<br>223<br>225<br>232<br>235<br>255<br>256<br>264<br>267<br>280<br>283<br>285<br>285<br>285<br>285<br>292<br>2306   | GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC<br>GAC  
   | TAC<br>F<br>TAC<br>QCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>CAG<br>GAG<br>TAT<br>TGG<br>GAG<br>CAG<br>CAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>TTA<br>TTA<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>TTAC<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>C   
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>G->A<br>C->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C  | No<br>H<br>No<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No   
  | I<br>Hae III +<br>EcoR II +<br>Msp I -<br>BstK I -   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins7<br>E207K<br>E2070 - IRAQ<br>S223Y<br>736del6<br>R232W<br>D235E<br>C255K<br>E256K<br>H264Q<br>E26K<br>H264Q<br>D280G<br>D283N<br>S285L<br>S285L<br>S285L<br>S31delAA<br>C292Y<br>H306Y  
   | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Cys<br>Glu<br>His<br>Ser<br>Ser<br>Lys<br>Cys<br>His   | Giy<br>Tyr<br>Ala<br>Fr.<br>Lys<br>Gin<br>Tyr<br>Fr.<br>Trp<br>Giu<br>Stop<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Tyr<br>Tyr<br>Tyr  | M<br><br>   
   | 1<br>2B<br>2B<br>   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>P<br>P<br>?<br>?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>F 2/508<br>?<br>P<br>F 5/115<br>?<br>?<br>?<br>?<br>?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P                              | S. Air. Indian<br>S<br>Spanish<br>S. Air. Coloured<br>French-Canadian<br>Costa Rican<br>S. Air. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek<br>Irish<br>German<br>Afrikaner<br>British<br>British<br>British   | 12<br>T<br>18<br>···1<br>14<br>10<br>12<br>23<br>28<br>8<br>··2<br>25<br>··2<br>28<br>··2<br>··5<br>166<br>··3<br>29<br>··1<br>8<br>8<br>8<br>8   |
| A         I           285         4           289         4           239         4           336         4           231         2           358         5           255         2           358         5           255         2           353         6           353         6           253         0           294         0           278         0           278         0           279         0           233         0           331         331  
   | B         4           4         4           4         4           5         5           5         5           5         5           6         6           6         6           6         6           6         6           6         6           7         7   | C<br>661<br>671<br>681<br>682<br>731<br>736<br>757<br>828<br>829<br>856<br>862<br>902<br>910<br>917<br>931<br>931<br>938<br>979<br>985  
  | D<br>200<br>203<br>206<br>207<br>223<br>223<br>235<br>235<br>255<br>255<br>264<br>264<br>267<br>280<br>285<br>285<br>285<br>285<br>285<br>290<br>306<br>308  | GAC           E         GAC           GAC         TCA           AAA         TGC           TGC         CAC   
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>CAG<br>CAG<br>TAT<br>GGG<br>CAG<br>TGA<br>AAG<br>CAA<br>AAA<br>CAA<br>AAA<br>CAA<br>AAA<br>CAA<br>AAA<br>CAA<br>AAC<br>CAG<br>TTA<br>TTA<br>TTA<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>C->A<br>Stop at 263<br>C->A<br>C->A<br>G->A<br>G->A<br>C->A<br>G->A<br>C->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C   | No<br>H<br>No<br>Ves<br>No<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No   
  | I<br>Hae III +<br>EcoR II +<br>Msp I -<br>BstK I -<br>Rsa I +  | D200Y           J           D203A           681ins7           681ins8           E2070 - IRAQ           S223Y           736delG           R232W           D235E           C255X           E267K           D280G           D280G           D280G           D283N           S285L           S285L           S285L           S285L           S285L           S265L           931delAA           C292Y           H306Y           C308C + POLND   
   | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Cys<br>Glu<br>His<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser   | Giy<br>Tyr<br>L<br>Tyr<br>Ala<br>Fr.<br>Lys<br>Gin<br>Tyr<br>Fr.<br>Lys<br>Gin<br>Lys<br>Giu<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Cyr<br>Gin<br>Cyr<br>Gin<br>Cyr<br>Fr.<br>Gin<br>Cyr<br>Fr.<br>Gin<br>Cyr<br>Fr.<br>Gin<br>Cyr<br>Fr.<br>Gin<br>Cyr<br>Fr.<br>Gin<br>Cyr<br>Fr.<br>Gin<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Cyr<br>Fr.<br>Cyr<br>Cyr<br>Fr.<br>Cyr<br>Cyr<br>Fr.<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr   | LB5<br>M<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7  | 1<br>2B<br>2B<br>   | Htz O Htz                      | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   
   |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian S Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish British Austrian Finnish Austrian Walloon Belgian German Greek Insh German Afrikaner British Bri  | 12           T           18           ··1           14           10           23           28           8           *2           25           ·22           ·5           16           ·33           29           ·1           8           8           8           9           ·1           8           8           8           9           23   |
| A         1           2865         2           280         2           250         4           239         4           2345         2           354         2           255         4           255         4           255         4           255         4           358         5           358         5           253         6           253         6           279         6           279         2           233         6           233         2           233         6           233         6           233         1           331         3           331         3  
   | B         4           4         4           4         4           5         5           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           7         7   | C<br>661<br>671<br>681<br>682<br>731<br>736<br>757<br>828<br>829<br>855<br>862<br>910<br>917<br>917<br>931<br>938<br>979<br>935<br>1012   
  | D<br>2000<br>2033<br>206<br>207<br>223<br>2255<br>2556<br>2556<br>2556<br>2644<br>267<br>280<br>283<br>2855<br>285<br>285<br>285<br>285<br>285<br>285<br>285<br>285<br>28  | GAC           E         GAC           GAC         GAC           TCA         AAA           AAA         TGC           TGC         TGC   
   | TAC<br>F<br>TAC<br>QCC<br>ins7c<br>ins8c<br>AAG<br>CAA<br>CAA<br>TAT<br>TAT<br>Cel1a<br>TGG<br>GAG<br>CAA<br>CAA<br>AAA<br>CAA<br>AAA<br>CAA<br>AAA<br>CAA<br>TTA<br>TTA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>C->A<br>Stop at 263<br>C->T<br>A->G<br>C->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T   | No<br>H<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>Yes<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No   
  | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK I -   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins7<br>681ins7<br>681ins7<br>2007 - IRAQ<br>S223Y<br>736delG<br>R232W<br>D235E<br>C255X<br>E256K<br>H264Q<br>E267K<br>D280G<br>D283N<br>S285L<br>S285L<br>S285L<br>S31delAA<br>C292Y<br>H306Y<br>C306G - POLAND<br>C317R - GIFU  
   | K<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Ser<br>Glu<br>His<br>Glu<br>His<br>Ser<br>Ser<br>Lys<br>Cys<br>Ser<br>Cys<br>Cys  | Giy<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Fr.<br>Tyr<br>Fr.<br>Tyr<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Cyr<br>Tyr<br>Tyr<br>Tyr<br>Cyr<br>Giy<br>Asn<br>Cyr<br>Fr.<br>Gin<br>Cyr<br>Stop<br>Cyr<br>Cyr<br>Fr.<br>Gin<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Fr.<br>Cyr<br>Cyr<br>Fr.<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr<br>Cyr  | LB5<br>M<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7   | 1<br>2B<br>2B<br>   | Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz<br>Htz |
Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>P<br>P<br>?<br>?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>F 2/508<br>?<br>P<br>F 5/115<br>?<br>?<br>?<br>?<br>?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P                              | S. Afr. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S. Afr. Coloured<br>French-Canadian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Filmish<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek<br>Irish<br>German<br>Afrikaner<br>British<br>British<br>British<br>British<br>British   | 12           T           18           ···1           14           10           12           23           28           ··2           28           ··2           28           ··2           28           ··2           28           ··2           28           ··2           28           ··2           28           ··2           28           ··2           ·2           ·2           ·2           ·2           ·2           ·1           8           8           8           8           8           8           8           ·3  |
| A         I           265         2           285         2           239         2           239         2           336         2           336         2           231         2           255         2           358         2           358         2           358         2           358         2           358         2           358         2           358         2           303         2           303         2           3341         2           278         2           278         2           232         2           233         2           233         2           331         3           316         2           236         2   
   | B         4           4         4           4         4           5         5           5         5           5         5           6         6           6         6           6         6           6         6           6         6           7         7   | C<br>661<br>671<br>681<br>682<br>731<br>736<br>757<br>828<br>829<br>856<br>862<br>902<br>910<br>917<br>931<br>931<br>938<br>979<br>985  
  | D<br>200<br>203<br>206<br>207<br>223<br>223<br>235<br>235<br>255<br>255<br>264<br>264<br>267<br>280<br>285<br>285<br>285<br>285<br>285<br>290<br>306<br>308  | GAC           E         GAC           GAC         TCA           AAA         TGC           TGC         CAC   
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>CAG<br>CAG<br>TAT<br>GGG<br>CAG<br>TGA<br>AAG<br>CAA<br>AAA<br>CAA<br>AAA<br>CAA<br>AAA<br>CAA<br>AAA<br>CAA<br>AAC<br>CAG<br>TTA<br>TTA<br>TTA<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>C->A<br>Stop at 263<br>C->A<br>C->A<br>G->A<br>G->A<br>C->A<br>G->A<br>C->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C   | No<br>H<br>No<br>Ves<br>No<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No   
  | I<br>Hae III +<br>EcoR II +<br>Msp I -<br>BstK I -<br>Rsa I +  | D200Y           J           D203A           681ins7           681ins8           E2070 - IRAQ           S223Y           736delG           R232W           D235E           C255X           E267K           D280G           D280G           D280G           D283N           S285L           S285L           S285L           S285L           S285L           S265L           931delAA           C292Y           H306Y           C308C + POLND   
   | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Cys<br>Glu<br>His<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser   | Giy<br>Tyr<br>L<br>Tyr<br>Fr.<br>Fr.<br>Fr.<br>Tyr<br>Fr.<br>Tyr<br>Fr.<br>Tyr<br>Gin<br>Uys<br>Giy<br>Asn<br>Leu<br>Lys<br>Giy<br>Asn<br>Leu<br>Fr.<br>Tyr<br>Giy<br>Stop<br>Fr.<br>Stop<br>Ser  | LB5<br>M<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB5<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB6<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7<br>LB7  | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B                   | Htz O Htz                      | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   
   |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian<br>Spanish<br>S. Air. Coloured<br>French-Canadian<br>Costa Rican<br>S. Air. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Filmish<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek<br>Irish<br>German<br>Afrikaner<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>Belgian   | 12           T           18           ···1           12           23           28           8           ··2           28           ··2           26           ··2           26           ··2           ··2           ··2           ··2  |
| A         I           285         4           289         4           239         4           239         4           239         4           239         4           231         4           235         5           356         4           255         5           358         6           253         6           253         6           253         6           279         6           233         6           233         6           233         6           233         6           233         6           233         6           233         6           233         6           233         6           331         7           318         7           337         7  
   | B         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7   | C<br>661<br>661<br>682<br>682<br>682<br>731<br>757<br>767<br>767<br>828<br>829<br>829<br>829<br>902<br>910<br>917<br>931<br>931<br>938<br>979<br>931<br>931<br>931<br>931<br>931  
  | D<br>2003<br>2066<br>2077<br>2077<br>2233<br>2255<br>2556<br>2644<br>267<br>2806<br>2835<br>2855<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>285  | GAC           E           GAC   
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAA<br>TAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>TTA<br>TTA<br>TTA<br>CGC<br>CAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>TTA<br>TAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>TAT<br>TAA<br>AAG<br>CAA<br>AAG<br>CAA<br>TAT<br>TAA<br>AAG<br>CAA<br>TAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>TAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>CAA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A   | No<br>H<br>No<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>Yes<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>Yes<br>Yes<br>Yes  
  | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK I -<br>BstK I -<br>Hae II +<br>Hae II +<br>Alu I -<br>Alu I -   | D200Y<br>J<br>D203A<br>681ins7<br>681ins7<br>682070 - IRAQ<br>S223Y<br>738delG<br>R232W<br>D235E<br>C255X<br>E256K<br>H264Q<br>D280G<br>D280G<br>D280G<br>D280S<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S3178 - GIFU<br>D321N<br>G322S<br>S225 - SYIIA  
   | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Glu<br>Ser<br>Glu<br>Ser<br>Cys<br>Ser<br>Lys<br>Cys<br>Ser<br>Lys<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys  | Giy<br>Tyr<br>L<br>Tyr<br>Ala<br>Gin<br>Tyr<br>Fr.<br>Gin<br>Tyr<br>Giu<br>Stop<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Char<br>Fr.<br>Tyr<br>Giu<br>Stop<br>Ser<br>Ser   | LB5           M           LB5           LB5           LB5           LB5           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>W</td><td></td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian<br/>S<br/>Spanish<br/>S. Air. Coloured<br/>French-Canadian<br/>Costa Rican<br/>S. Air. Indian<br/>Jewish Ashkenazi<br/>Flemish<br/>British<br/>Austrian<br/>Walloon<br/>Belgian<br/>German<br/>Greek<br/>Irish<br/>German<br/>Airikaner<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>Belgian<br/>Belgian</td><td>12           T         18          </td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B                   | Htz O Htz                      | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>W  
   |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian<br>S<br>Spanish<br>S. Air. Coloured<br>French-Canadian<br>Costa Rican<br>S. Air. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek<br>Irish<br>German<br>Airikaner<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>Belgian<br>Belgian  | 12           T         18   |
| A         I           285         2           280         2           250         2           239         2           236         2           354         2           231         2           255         2           356         2           255         2           358         2           256         2           353         0           303         0           253         0           294         0           294         0           2978         0           2978         0           2334         -           318         -           2334         -           318         -           236         -           3304         -           337         -           236         -   
   | B         4           4         4           4         4           4         4           5         5           5         5           5         5           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>767<br>787<br>828<br>829<br>828<br>829<br>902<br>910<br>917<br>917<br>931<br>937<br>938<br>979<br>938<br>1012<br>1024<br>1027   
  | D<br>2000<br>2003<br>2066<br>2077<br>2235<br>2355<br>2556<br>2556<br>264<br>267<br>2800<br>2833<br>2655<br>2656<br>264<br>267<br>2800<br>2920<br>2920<br>2920<br>2920<br>2920<br>2920<br>2920  | GAC           E         GAC           GAC         TCT           TCT         TCA           GAC         GAC           GAC         GAC           CAC         TCA           TCA         TCA           AAA         TCA           CAC         CAC           CAC         CAC           CAC         CAC           CAC         CAC   
   | TAC<br>F<br>TAC<br>QCC<br>insTc<br>insTc<br>insTc<br>AAG<br>CAG<br>TAT<br>TAT<br>TGG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>C  
   | G→T<br>G<br>G→T<br>A→C<br>Stop at 216<br>ns<br>G→A<br>G→A<br>G→A<br>C→A<br>Stop at 263<br>C→A<br>Stop at 263<br>C→A<br>C→A<br>G→A<br>G→A<br>G→A<br>C→T<br>C→T<br>Stop at 298<br>G→A<br>C→T<br>T→C<br>Stop at 298<br>G→A<br>C→T<br>C→A<br>Stop at 298<br>G→A<br>C→T<br>Stop at 298<br>G→A<br>C→A<br>C→T  | No<br>H<br>No<br>No<br>Yes<br>No<br>No<br>Yes<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No   
   | I<br>Hae III +<br>EcoR II +<br>Msp I -<br>BstK I -<br>Rsa I +<br>Hae II +<br>Alu I -   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins8<br>E2070 - IRAQ<br>S223Y<br>736delG<br>R232W<br>D235E<br>C255X<br>C255X<br>E256K<br>H264Q<br>E267K<br>D280G<br>D283N<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S265L<br>S277<br>H306Y<br>S265L<br>S265L<br>S277<br>H306Y<br>S265L<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S277<br>S2777<br>S2777<br>S2777<br>S2777<br>S27777<br>S277777<br>S27777777777   | K<br>Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Ser<br>Glu<br>Ser<br>Glu<br>Ser<br>Cys<br>Glu<br>Asp<br>Cys<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   
  | Giy<br>Tyr<br>L<br>Tyr<br>Fr.<br>Fr.<br>Fr.<br>Gin<br>Tyr<br>Fr.<br>Gin<br>Gin<br>Uys<br>Giv<br>Uys<br>Giv<br>Lys<br>Giv<br>Leu<br>Leu<br>Eeu<br>Fr.<br>Tyr<br>Tyr<br>Siop<br>Ser<br>Siop   | LB5           M           LB5           LB6           LB6           LB6           LB6           LB7           E07A           E07A           E07A  | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>W   
  |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian<br>Spanish<br>S. Afr. Coloured<br>French-Canadian<br>Costa Rican<br>S. Afr. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian<br>Finnish<br>Austrian<br>Belgian<br>German<br>Greek<br>Irish<br>Belgian<br>German<br>Afrikaner<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>Belgian<br>Jewish Ashkenazi<br>Belgian   | 12           T           18           ''1           14           10           12           23           23           24           ''2           ''5           ''2           ''5           ''2           ''5           ''2           ''5           ''1           8           8           8           8           8           8           8           23           ''1           8           8           8           ''1           8           8           8           8           8           8           8           8           8           8           8           8           8           13           13           14           10           11           12           13           14  |
| A         I           2865         2           289         2           239         2           245         2           238         2           237         2           238         2           255         2           358         2           255         2           358         2           255         2           358         2           253         2           253         2           279         2           232         2           233         2           233         2           233         2           233         2           234         1           235         3           331         3           333         1           333         1           333         1   
   | B         4           4         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7   | C<br>661<br>671<br>681<br>682<br>731<br>736<br>737<br>737<br>828<br>829<br>902<br>910<br>917<br>917<br>931<br>938<br>979<br>938<br>979<br>938<br>1012<br>1024   
  | D<br>2003<br>2006<br>2007<br>2077<br>2077<br>2235<br>2355<br>2555<br>2556<br>264<br>2637<br>2800<br>2835<br>2855<br>2800<br>2835<br>2855<br>2800<br>2835<br>2856<br>2800<br>292<br>2900<br>292<br>2900<br>292<br>2900<br>292<br>2900<br>292<br>2900<br>292<br>2900<br>2927<br>2937<br>2957<br>2957<br>2957<br>2957<br>2957<br>2957<br>2957<br>295  | GAC           E         GAC           GAC         GAC           CAC         GAC           CAC         GAC           CAC         GAC           CAC         CAC           CAC         CAC   
   | TAC<br>F<br>TAC<br>QCC<br>insTc<br>insBc<br>AAG<br>CAG<br>CAG<br>TAT<br>TAT<br>TGG<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAG<br>C   
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C  | No           H           No           Yess           No           Yess           No           Yess           No           Yess           No           Yess           No           No <tr< td=""><td>I<br/>Hae III +<br/>EcoR II +<br/>Msp 1 -<br/>BstK I -<br/>BstK I -<br/>Hae II +<br/>Hae II +<br/>Alu I -<br/>Alu I -</td><td>D200Y  J D203A 681ins7 681ins7 681ins8 E207C-IRAQ S223Y 736delG R232W D235E C255X C2</td><td>Asp<br/>K<br/>Asp<br/>Asp<br/>Clu<br/>Glu<br/>Glu<br/>Glu<br/>Glu<br/>Glu<br/>Cys<br/>Cys<br/>Ser<br/>Ser<br/>Ser<br/>Ser<br/>Ser<br/>Ser<br/>Cys<br/>Ser<br/>Cys<br/>Ser<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cols<br/>Cols<br/>Cols<br/>Cols<br/>Cols<br/>Cols<br/>Cols<br/>Col</td><td>Giy<br/>Tyr<br/>L<br/>Tyr<br/>Fr.<br/>Cala<br/>Tyr<br/>Fr.<br/>Gin<br/>Tyr<br/>Giu<br/>Stop<br/>Gin<br/>Lys<br/>Gin<br/>Lys<br/>Gin<br/>Lys<br/>Gin<br/>Lys<br/>Gin<br/>Lys<br/>Gin<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.</td><td>LB5           M           LB5           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>ab<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa</td><td></td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian<br/>S<br/>Spanish<br/>S. Air. Coloured<br/>French-Canadian<br/>Costa Rican<br/>S. Air. Indian<br/>Jewish
Ashkenazi<br/>Flemish<br/>British<br/>Austrian<br/>Finnish<br/>Austrian<br/>Walloon<br/>Belgian<br/>German<br/>Greek<br/>Irish<br/>German<br/>Afrikaner<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>Br</td><td>12           T           18           **1           14           10           12           23           25           *2           25           *2           25           *2           25           *2           25           *2           25           *2           25           *2           25           *2           25           *3           29           *3           8           8           8           23           8           *23</td></t<></td></tr<> | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK I -<br>BstK I -<br>Hae II +<br>Hae II +<br>Alu I -<br>Alu I -   | D200Y  J D203A 681ins7 681ins7 681ins8 E207C-IRAQ S223Y 736delG R232W D235E C255X C2  | Asp<br>K<br>Asp<br>Asp<br>Clu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Cys<br>Cys<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cols<br>Cols<br>Cols<br>Cols<br>Cols<br>Cols<br>Cols<br>Col  |
Giy<br>Tyr<br>L<br>Tyr<br>Fr.<br>Cala<br>Tyr<br>Fr.<br>Gin<br>Tyr<br>Giu<br>Stop<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Stop<br>Fr.<br>Stop<br>Fr.   | LB5           M           LB5           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>ab<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa</td><td></td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian<br/>S<br/>Spanish<br/>S. Air. Coloured<br/>French-Canadian<br/>Costa Rican<br/>S. Air. Indian<br/>Jewish Ashkenazi<br/>Flemish<br/>British<br/>Austrian<br/>Finnish<br/>Austrian<br/>Walloon<br/>Belgian<br/>German<br/>Greek<br/>Irish<br/>German<br/>Afrikaner<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>Br</td><td>12           T           18           **1           14           10           12           23           25           *2           25           *2           25           *2           25           *2           25           *2           25           *2           25           *2           25           *2           25           *3           29           *3           8           8           8           23           8           *23</td></t<> | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>ab<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa   |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian<br>S<br>Spanish<br>S. Air. Coloured<br>French-Canadian<br>Costa Rican<br>S. Air. Indian<br>Jewish
Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek<br>Irish<br>German<br>Afrikaner<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>Br | 12           T           18           **1           14           10           12           23           25           *2           25           *2           25           *2           25           *2           25           *2           25           *2           25           *2           25           *2           25           *3           29           *3           8           8           8           23           8           *23  |
| A         I           285         -           285         -           250         -           239         -           230         -           336         -           3354         -           231         -           255         -           354         -           255         -           358         -           256         -           353         -           256         -           303         -           294         -           294         -           294         -           294         -           294         -           2978         -           2978         -           2923         -           2331         -           3311         -           295         -           303         -           304         -           3037         -           3333         -           3234         -   
   | B         4           4         4           4         4           4         5           5         5           5         5           5         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>767<br>767<br>767<br>787<br>928<br>828<br>829<br>902<br>910<br>910<br>917<br>917<br>931<br>937<br>937<br>937<br>937<br>931<br>1012<br>1027<br>1027<br>1027  
  | D<br>2000<br>2003<br>2066<br>2077<br>2233<br>2255<br>2355<br>2566<br>264<br>285<br>2855<br>2855<br>2855<br>2855<br>2855<br>2855<br>2855  | GAC           E         GAC           GAC         TCT           GAC         GAC           GAC         GAC           GAC         TCA           TCA         TCA           TCA         TCA           TCA         TCA           TCA         TCA           TCA         TCA           TCA         GAC           GAC         TCA           TCA         TCA           TCA         GAC           GAC         GAC           CAC         GAC           CAC         GAC           CAC         GAC           GAC         GAC           GAC         GAC           CAC         GAC           CAC         GAC           GAC         GAC   
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins7c<br>ins7c<br>ins7c<br>AAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAG<br>CAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>CAA   
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>C->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C  | No           H           No           Yes           No           No      N   
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK I -<br>BstK I -<br>Hae II +<br>Hae II +<br>Alu I -<br>Alu I -   | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E2070 - IRAQ S223Y 738delG R232W D235E C255X C255X C255X C255X C255X C255K H264Q D283N D283N D283N S285L S265L S265L S31delAA C292Y H306Y C3066 - POLAND C317R - GIFU D321N G322S - SYRIA Q324X I046del - RUSSIA-HUNGARY R328X  
  | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Glu<br>Asp<br>Glu<br>His<br>Ser<br>Gly<br>Asp<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   | Giy<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Tyr<br>Gin<br>Sin<br>Gin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>S  | LB5           M           LB5           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>W</td><td></td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. January Constants S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Astkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Insh German Afrikaner British British British British British British Belgian Japanese British Belgian Jewish Astkenazi Dirtish Belgian Jewish Astkenazi British Belgian Jewish Astkenazi British British British British Belgian Jewish Astkenazi British Shetnazi British British British British Belgian Shetnazi British Belgian Shetnazi British B</td><td>12           T         18           114         10           1223         23           232         23           24         23           255         16           ***3         2           28         ***2           28         ***2           28         ***2           28         ***2           28         ***3           8         ***2           28         ***3           8         ***2           23         ***3           8         ****2           23         *****           24         *****           8         *****           11         *****           12         ******           23         ******           23         *****           24         *****           25         *****           26         *****           27         *****           28         ****           23         ****           24         ****           25         ******           26         ******</td></t<>  | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>W   
  |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian S. Air. Indian S. January Constants S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Astkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Insh German Afrikaner British British British British British British Belgian Japanese British Belgian Jewish Astkenazi Dirtish Belgian Jewish Astkenazi British Belgian Jewish Astkenazi British British British British Belgian Jewish Astkenazi British Shetnazi British British British British Belgian Shetnazi British Belgian Shetnazi British B  | 12           T         18           114         10           1223         23           232         23           24         23           255         16           ***3         2           28         ***2           28         ***2           28         ***2           28         ***2           28         ***3           8         ***2           28         ***3           8         ***2           23         ***3           8         ****2           23         *****           24         *****           8         *****           11         *****           12         ******           23         ******           23         *****           24         *****           25         *****           26         *****           27         *****           28         ****           23         ****           24         ****           25         ******           26         ****** |
| A         I           285         2           289         2           239         2           239         2           231         2           231         2           235         2           356         4           256         3           368         4           256         2           353         6           303         6           294         6           294         6           294         6           233         6           234         7           331         3           331         3           334         7           333         7           333         7           333         7           333         7           333         7           333         7           236         7           333         7           246         7  
   | B         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7   | C<br>661<br>671<br>681<br>682<br>731<br>736<br>829<br>855<br>862<br>902<br>910<br>917<br>931<br>931<br>938<br>902<br>910<br>917<br>931<br>933<br>1012<br>1024<br>1027<br>1027<br>1027   
  | D<br>2000<br>2033<br>2066<br>2077<br>2037<br>2233<br>2255<br>2352<br>2352<br>2556<br>2644<br>2677<br>2800<br>282<br>2855<br>2900<br>2922<br>2855<br>2900<br>3088<br>3177<br>3213<br>3228<br>3088<br>3197<br>3213<br>3228<br>3288<br>3299<br>329<br>329<br>329<br>329<br>329<br>329<br>32   | GAC           E         GAC   
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins7c<br>ins7c<br>ins7c<br>AAG<br>CAA<br>GCAG<br>TAT<br>TAT<br>GAG<br>CAA<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>CAA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>C->A<br>Stop at 263<br>C->T<br>A->G<br>C->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>C->T<br>C->T<br>Stop at 298<br>G->A<br>C->T<br>Stop at 298<br>G->A<br>C->T<br>Stop at 368<br>C->T<br>T->C<br>G->A<br>C->T<br>Stop at 368<br>C->T<br>T->C<br>Stop at 368<br>C->T<br>Stop at 368<br>C->T<br>C->T   | No           H           No           Yes           No           Yes           No           Yes           No           Yes           No           Yes           No   
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK I -<br>BstK I -<br>Hae II +<br>Hae II +<br>Alu I -<br>Alu I -   | D200Y  J D203A 681ins7 681ins7 681ins8 E207C-IRAQ S223Y 736delG R232W D235E C255X C2  | K<br>Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>His<br>Ser<br>Cys<br>Glu<br>His<br>Ser<br>Cys<br>Ser<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   
  | Gly<br>Tyr<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Tyr<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Fr.<br>Tyr<br>Fr.<br>Tyr<br>Fr.<br>Tyr<br>Fr.<br>Tyr<br>Fr.<br>Stop<br>Stop<br>Stop   | LB5           M           LB5           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>W</td><td></td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Ritish Austrian Finnish Austrian Walloon Belgian German Greek Irish British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British Belgian Jewish Ashkenazi British Belgian Jewish Ashkenazi British Belgian Jewish Ashkenazi British Belgian Semman Semman</td><td>12           T         18           114         10           12         23           28         22           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *3           8         8           8         8           8         8           8         8           8         8           8         8           8         8           9         *1           8         8           8         8           8         8           8         8           8         8           8         8           8         8           8         23</td></t<>  | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>W  |             | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian S. Air. Indian S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Ritish Austrian Finnish Austrian Walloon Belgian German Greek Irish British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British Belgian Jewish Ashkenazi British Belgian Jewish Ashkenazi British Belgian Jewish Ashkenazi British Belgian Semman   | 12           T         18           114         10           12         23           28         22           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *2           28         *3           8         8           8         8           8         8           8         8           8         8           8         8           8         8           9         *1           8         8           8         8           8         8           8         8           8         8           8         8           8         8
          8         23  |
| A         I           2865         2           280         2           239         2           239         2           2345         2           2354         2           2355         2           356         2           255         2           356         2           256         6           353         6           256         6           303         6           254         7           234         7           233         1           233         1           234         7           234         7           233         1           236         7           331         7           334         7           236         7           333         7           236         7           233         7           236         7           233         7           234         7           236         7           236         7           236  
   | B         4           4         4           4         4           4         5           5         5           5         5           5         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7   | C<br>661<br>671<br>681<br>682<br>682<br>731<br>736<br>757<br>767<br>767<br>767<br>767<br>787<br>928<br>828<br>829<br>902<br>910<br>910<br>917<br>917<br>931<br>937<br>937<br>937<br>937<br>931<br>1012<br>1027<br>1027<br>1027  
  | D<br>2000<br>2003<br>2066<br>2077<br>2233<br>2255<br>2355<br>2566<br>264<br>285<br>2855<br>2855<br>2855<br>2855<br>2855<br>2855<br>2855  | GAC           E         GAC           GAC         TCT           GAC         GAC           GAC         GAC           GAC         TCA           TCA         TCA           TCA         TCA           TCA         TCA           TCA         TCA           TCA         TCA           TCA         GAC           GAC         TCA           TCA         TCA           TCA         GAC           GAC         GAC           CAC         GAC           CAC         GAC           CAC         GAC           GAC         GAC           GAC         GAC           CAC         GAC           CAC         GAC           GAC         GAC   
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins7c<br>ins7c<br>ins7c<br>AAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAG<br>CAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>CAA   
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>C->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C  | No           H           No           Yes           No           No      N   
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK I -<br>BstK I -<br>Hae II +<br>Hae II +<br>Alu I -<br>Alu I -   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins8<br>E207G - IRAQ<br>S223Y<br>736delG<br>R232W<br>D235E<br>C255X<br>C255X<br>C255X<br>E256K<br>H264Q<br>E267K<br>D280G<br>D283N<br>S285L<br>S285L<br>S285L<br>S31delAA<br>C292Y<br>H306Y<br>C308C - POLAND<br>C317R - GIFU<br>D321N<br>G322S - SYRIA<br>G322S - SYRIA<br>G322S - SYRIA  
  | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Ser<br>Glu<br>Glu<br>Glu<br>Glu<br>Ser<br>Cys<br>Ser<br>Ser<br>Lys<br>Ser<br>Ser<br>Ser<br>Asp<br>Cys<br>Ser<br>Asp<br>Cys<br>Asp<br>Cys<br>Asp<br>Chart<br>Cys<br>Ser<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Chart<br>Char | Giy<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Tyr<br>Gin<br>Sin<br>Gin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>Sin<br>S  | LB5           M           LB5           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa</td><td></td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. January Constants S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Astkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Insh German Afrikaner British British British British British British Belgian Japanese British Belgian Jewish Astkenazi Dirtish Belgian Jewish Astkenazi British Belgian Jewish Astkenazi British British British British Belgian Jewish Astkenazi British Shetnazi British British British British Belgian Shetnazi British Belgian Shetnazi British B</td><td>12           T           18           223           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           *3</td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa  
  |             | ?<br>R<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P  | S. Air. Indian S. Air. Indian S. January Constants S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Astkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Insh German Afrikaner British British British British British British Belgian Japanese British Belgian Jewish Astkenazi Dirtish Belgian Jewish Astkenazi British Belgian Jewish Astkenazi British British British British Belgian Jewish Astkenazi British Shetnazi British British British British Belgian Shetnazi British Belgian Shetnazi British B  | 12           T           18           223           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           28           *2           *3  |
| A         I           285         2           289         2           239         2           239         2           231         2           231         2           235         2           356         2           356         2           255         2           368         2           255         2           256         2           253         0           278         0           278         0           278         0           278         0           233         0           233         0           233         0           233         0           233         0           233         0           233         0           334         1           333         1           264         1           333         1           245         1           3330         1           264         1           318         0   
   | B         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7           7         7   |
C<br>661<br>671<br>681<br>682<br>731<br>757<br>767<br>767<br>767<br>782<br>829<br>902<br>910<br>917<br>931<br>937<br>937<br>937<br>938<br>1012<br>1027<br>1023<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1047<br>1047<br>1047<br>1046<br>1046<br>1046<br>1046<br>1046<br>1047<br>1047<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>1046<br>104  | D<br>2000<br>2033<br>2066<br>2077<br>2233<br>2255<br>2352<br>2352<br>2352<br>2455<br>2454<br>2467<br>2850<br>2467<br>2850<br>2467<br>2850<br>2467<br>2850<br>292<br>2930<br>206<br>292<br>2930<br>295<br>295<br>295<br>295<br>295<br>295<br>295<br>295   | GAC           E         GAC           GAC         GAC  
  | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAG<br>TAG<br>TGA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>TTA<br>TTA<br>TTA<br>CGC<br>CAA<br>CAA<br>CAA<br>TTA<br>TTA<br>CGC<br>CAA<br>CAA<br>TTA<br>TAC<br>TAC<br>CAA<br>CAA<br>CAA<br>TTA<br>TAC<br>CAA<br>CAA   
  | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A   | No           H           No           Yess           No           Yess           No           Yess           No           Yess           No           Yess           No           Yess           Yes           Yes           Yes           No   
  | I<br>Hae III +<br>EcoR II +<br>Msp I -<br>BstK I -<br>BstK I -<br>Rsa I +<br>Hae II +<br>Alu I -<br>Alu I -<br>Pvu II -<br>Vu II -<br>Taq I -<br>Taq I -   | D200Y  J D203A G81ins7 G81ins7 G81ins8 E2074 E2074 E2074 FRAQ S223Y 736delG R232W D235E C255X E256K H264Q D235E C255X E256K H264Q D280G D283N S285L S2  | Asp           K         Asp           Asp         Asp           Asp         Glu           Ser         Gly           Glu         Ser           Glu         His           Glu         Gly           Asp         Glu           Glu         Ser           Glu         His           Ser         Ser           Ser         Ser           Ser         Glu           Asp         Glu           Glu         Glu           Asp         Glu           Glu         Glu           Glu         Glu           Glu         Glu           Glu         Glu           Asp         Glu   
   | Gly<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Tyr<br>Gly<br>Stop<br>Lys<br>Gly<br>Lys<br>Gly<br>Lys<br>Gly<br>Lys<br>Gly<br>Stop<br>Lys<br>Gly<br>Tyr<br>Tyr<br>Tyr<br>Gly<br>Stop<br>Fr.<br>Gly<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr  | LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>Wa<br/>W</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Air. Indian Costa Rican Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish British Austrian Flemish Austrian German German Greek Irish German Airikaner British Beigian Jewish Ashkenazi British Beigian Jewish Ashkenazi British Beigian Beigi</td><td>12           T           18           0           12           14           14           12           23           23           8           *22           28           *22           28           *33           8           23           8           8           8           23           8           8           23           8           23           8           9           *22           23           8           8           8           8           8           8           8           8           9           *23           179           *3           *3           *3</td></t<>  | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>Wa<br>W  | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian S. Air. Indian S. Air. Indian Costa Rican Costa Rican S. Air. Coloured French-Canadian
Costa Rican S. Air. Indian Jewish Ashkenazi Flemish British Austrian Flemish Austrian German German Greek Irish German Airikaner British Beigian Jewish Ashkenazi British Beigian Jewish Ashkenazi British Beigian Beigi  | 12           T           18           0           12           14           14           12           23           23           8           *22           28           *22           28           *33           8           23           8           8           8           23           8           8           23           8           23           8           9           *22           23           8           8           8           8           8           8           8           8           9           *23           179           *3           *3           *3   |
| A         I           285         -           289         -           250         -           239         -           239         -           236         -           3364         -           231         2           255         -           358         -           253         -           253         -           278         -           278         -           278         -           233         -           233         -           233         -           233         -           233         -           331         -           236         -           3331         -           236         -           3333         -           292         -           304         -           333         -           292         -           306         -           333         -           292         -           306         -           333   
   | B         4           4         4           4         4           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7           7         7           8         8   |
C<br>661<br>671<br>681<br>682<br>733<br>757<br>767<br>767<br>767<br>767<br>767<br>767<br>917<br>917<br>917<br>933<br>938<br>902<br>905<br>1012<br>1024<br>1027<br>1023<br>1048<br>1048<br>1056<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066 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      | GAC           E           GAC  
  | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins7c<br>ins7c<br>AAG<br>CAG<br>TAT<br>TAT<br>TGG<br>CAG<br>CAG<br>CAG<br>CAG<br>TAA<br>CAA<br>AAA<br>AAA<br>AAA<br>CAA<br>CAA<br>CAA<br>CAA<br>CAA   
  | G→T<br>G<br>G→T<br>A→C<br>Stop at 216<br>ins<br>G→A<br>G→A<br>G→A<br>G→A<br>C→T<br>A→G<br>C→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G  | No           H           No           Yes           No           Yes           No           Yes           No           Yes           No           Yes           No  
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK I -<br>BstK I -<br>Rsa I +<br>Hae II +<br>Alu I -<br>Alu I -<br>Pvu II -<br>Pvu II -<br>Taq I -<br>Taq I -<br>Taq I -<br>Taq I -  | D200Y           J           D200Y           D203A           681ins7           681ins8           E2070 - IRAQ           S223Y           736delG           R232W           D235E           C255X           E266K           H264Q           E266K           D280G           D283N           S285L           S265L           931delA           C306Y           C306Y           G322S           G328X           R329X           R329X           C331W           D335Y   
  | K<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>S<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>S<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>S<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Ser<br>Cys<br>Cys<br>S<br>Cys<br>Ser<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys  | Giy<br>Tyr<br>Ala<br>Fr.<br>Lys<br>Gin<br>Fr.<br>Lys<br>Gin<br>Fr.<br>Cys<br>Gin<br>Fr.<br>Gin<br>Fr.<br>Gin<br>Cys<br>Gin<br>Cys<br>Gin<br>Cys<br>Gin<br>Cys<br>Gin<br>Cys<br>Fr.<br>Gin<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   | LB5           M           LB5           LB5           LB5           LB5           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa     Wa     Wa</td><td></td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Ar. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Gireek Insh German Afrikaner British Belgian Jewish Ashkenazi British Belgian B</td><td>12           1           18           238           -2238           28           -2238           28           -2238           28           -2238           28           -2238           2939           -11           8           -2338           8           -2338           8           -2338           8           -2338           8           -2338           8           -2338           8           -2339           -339           -233           -233           -233           -233           -233           -233           -233           -233</td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa  
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| A         I           2865         2           289         2           239         2           239         2           245         2           354         2           255         2           368         2           255         2           368         2           255         2           368         2           255         2           303         6           255         2           303         6           255         2           303         6           255         6           256         6           257         6           278         6           232         6           233         1           331         1           331         1           331         1           331         1           331         1           331         1           331         1           337         1           236         1           306         <   
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      | GAC           E         GAC           GAC         GAC           TCA         TCA           TGC         GGC           CAC         GAC           GAT         GAT           GAT         GAT  
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  | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>C->A<br>G->A<br>G->A<br>C->A<br>G->A<br>G->A<br>G->A<br>C->A<br>G->A<br>C->T<br>Stop at 298<br>G->A<br>C->T<br>Stop at 298<br>G->A<br>C->T<br>Stop at 298<br>G->A<br>C->T<br>Stop at 368<br>C->T<br>C->T<br>C->T<br>Stop at 368<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T  | No           H           No           Yes           No           Yes           No           Yes           No           Yes           No           Yes           No           Yes           No           Yes           Yes           No  
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -   | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E207C-IRAQ S223Y 736delG R232W D235E C255X C25 C255X C2  | Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Ser<br>Glu<br>Ser<br>Glu<br>Ser<br>Cys<br>Glu<br>His<br>Ser<br>Cys<br>Ser<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   
  | Gly<br>Tyr<br>Tyr<br>Alaa<br>Fr.<br>Fr.<br>Gly<br>Siop<br>Gly<br>Gly<br>Gly<br>Gly<br>Cys<br>Siop<br>Fr.<br>Siop<br>Fr.<br>Siop<br>Fr.<br>Siop<br>Fr.<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Cys<br>Siop<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys  | LB5           M           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa     Wa     Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>F 2/508<br/>?<br/>P<br/>P<br/>F 5/115<br/>F 5/115<br/>F 5/115<br/>F 5/115<br/>P<br/>P<br/>P<br/>F 4/791<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian<br/>S<br/>Spanish<br/>S. Air. Coloured<br/>French-Canadian<br/>Costa Rican<br/>S. Air. Indian<br/>Jewish Ashkenazi<br/>Flemish<br/>British<br/>Austrian<br/>Finnish<br/>Austrian<br/>Walloon<br/>Belgian<br/>German<br/>Greek<br/>Irish<br/>German<br/>Afrikaner<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>Belgian<br/>Jewish Ashkenazi<br/>British<br/>Belgian<br/>Jewish Ashkenazi<br/>British<br/>German<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian</td><td>12           T         18           114         14           114         14           122         23           225         22           25         22           25         16           16         10           12         23           13         8           23         3           179         12           23         17           19         12           23         17           12         23           13         23           14         14</td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa  
  | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>F 2/508<br>?<br>P<br>P<br>F 5/115<br>F 5/115<br>F 5/115<br>F 5/115<br>P<br>P<br>P<br>F 4/791<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P | S. Air. Indian<br>S<br>Spanish<br>S. Air. Coloured<br>French-Canadian<br>Costa Rican<br>S. Air. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Austrian<br>Walloon<br>Belgian<br>German<br>Greek<br>Irish<br>German<br>Afrikaner<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>Belgian<br>Jewish Ashkenazi<br>British<br>Belgian<br>Jewish Ashkenazi<br>British<br>German<br>Belgian<br>Belgian<br>Belgian<br>Belgian<br>Belgian<br>Belgian<br>Belgian<br>Belgian<br>Belgian<br>Belgian  | 12           T         18           114         14           114         14           122         23           225         22           25         22           25         16           16         10           12         23           13         8           23         3           179         12           23         17           19         12           23         17           12         23           13         23           14         14  |
| A         I           285         -           285         -           250         -           239         -           236         -           336         -           3354         -           237         -           256         -           336         -           237         -           256         -           358         -           256         -           353         -           256         -           353         -           254         -           306         -           3333         -           254         -           306         -           307         -           294         -           305         -           306         -           319         -           327         -           251         -  
   | B         4           4         4           4         4           5         5           5         5           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7           8         8           8         8   |
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      | GAC           E           GAC           CAC           GAC           CAC           GAC           CAC           GAC           GAC           CAC           CAC           GAT           GAT           GAT  
  | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins7c<br>ins7c<br>ins7c<br>AAG<br>CAG<br>TAT<br>TAG<br>GAG<br>CAG<br>CAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>TTA<br>TTA<br>TAC<br>TAC<br>TAC<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAA<br>CAA  
  | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>C->T<br>A->G<br>C->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C  | No           H         No           No         No           Yess         No           Yess         No           No         Yess           No         No           Yess         No           No         No           Yess         Yess           Yess         No           No         No           No         No           No         No           No         No   
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK I -<br>BstK I -<br>Rsa I +<br>Hae II +<br>Hae II +<br>Hae II +<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -   | D200Y  J  D200Y  D203A  681ins7  681ins7  681ins8  E2070 - IRAQ  S223Y  736delG  R232W  D235E  C255X  C255X  C255X  E256K  H264Q  D283N  S285L  | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp   
  | Gly<br>Tyr<br>Ala<br>Fr.<br>Lys<br>Gln<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly   | LB5           M           LB5           LB5           LB5           LB5           LB6           LB7           E0FA           E0FA           E0FA           E0FA           E0FA           E0FA           E0FA           E0FB           E0FB <td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td> <td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td> <td>Wa     Wa     Wa</td> <td>2140+5: G&gt;A</td> <td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td> <td>S. Air. Indian S. Air. Indian S. Jan. Ar. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Gireek Insh German Afrikaner British Belgian Jewish Ashkenazi British Belgian B</td> <td>12           1           18           238           -2238           28           -2238           28           -2238           28           -2238           28           -2238           2939           -11           8           -2338           8           -2338           8           -2338           8           -2338           8           -2338           8           -2338           8           -2339           -339           -233           -233           -233           -233           -233           -233           -233           -233</td>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa   | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   
                         | S. Air. Indian S. Air. Indian S. Jan. Ar. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Gireek Insh German Afrikaner British Belgian Jewish Ashkenazi British Belgian B  | 12           1           18           238           -2238           28           -2238           28           -2238           28           -2238           28           -2238           2939           -11           8           -2338           8           -2338           8           -2338           8           -2338           8           -2338           8           -2338           8           -2339           -339           -233           -233           -233           -233           -233           -233           -233           -233   |
| A         I           285         2           289         2           239         2           239         2           236         2           336         2           237         2           238         2           255         2           358         2           256         2           303         0           303         0           259         0           234         0           233         0           234         0           234         0           233         0           234         0           233         0           234         0           331         0           336         0           337         0           338         0           339         0           339         0           339         0           339         0           319         0           3251         0           2984         0           298  
   | B         4           4         4           4         4           4         5           5         5           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           8         8           8         8   | C<br>661<br>671<br>681<br>682<br>736<br>737<br>828<br>829<br>910<br>917<br>767<br>885<br>862<br>910<br>917<br>917<br>931<br>938<br>979<br>938<br>979<br>938<br>979<br>938<br>979<br>931<br>027<br>1027<br>1027<br>1027<br>1027<br>1027<br>1027<br>1027  
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      | GAC           E           GAC           GAC <t< td=""><td>TAC<br/>F<br/>TAC<br/>GCC<br/>insTc<br/>insTc<br/>insTc<br/>insTc<br/>AAG<br/>CAG<br/>TAT<br/>TAT<br/>TGA<br/>AAG<br/>CAA<br/>AAA<br/>CAA<br/>CAA<br/>CAA<br/>CAA<br/>C</td><td>G→T<br/>G<br/>G→T<br/>A→C<br/>Stop at 216<br/>ins<br/>G→A<br/>G→A<br/>G→A<br/>C→A<br/>Stop at 263<br/>C→A<br/>C→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>C→A<br/>C→A<br/>G→A<br/>C→A<br/>C→A<br/>C→A<br/>C→A<br/>C→A<br/>C→A<br/>C→A<br/>C</td><td>No           H         No           No         No           Yess         No           Yess         No           Yess         No           Yess         No           Yess         No           Yess         No           No         No           Yess         No           Yess         No           No         No</td><td>I<br/>Hae III +<br/>EcoR II +<br/>Msp 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -</td><td>D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E207C-IRAQ S223Y 736delG R232W D235E C255X C25 C255X C2</td><td>Asp<br/>Asp<br/>Asp<br/>Asp<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Asp<br/>Clu<br/>Ser<br/>Clu<br/>Clu<br/>Asp<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Ser<br/>Clu<br/>Clu<br/>Ser<br/>Clu<br/>Clu<br/>Ser<br/>Clu<br/>Clu<br/>Clu<br/>Clu<br/>Ser<br/>Clu<br/>Clu<br/>Clu<br/>Clu<br/>Clu<br/>Clu<br/>Clu<br/>Clu<br/>Clu<br/>Clu</td><td>Gly<br/>Tyr<br/>Tyr<br/>Alaa<br/>Fr.<br/>Fr.<br/>Cys<br/>Gln<br/>Tyr<br/>Fr.<br/>Gly<br/>Gln<br/>Lys<br/>Gln<br/>Lys<br/>Gln<br/>Lys<br/>Gln<br/>Lys<br/>Gln<br/>Lys<br/>Gln<br/>Lys<br/>Gln<br/>Lys<br/>Gln<br/>Exp<br/>Fr.<br/>Gly<br/>Fr.<br/>Gly<br/>Fr.<br/>Gly<br/>Fr.<br/>Gly<br/>Fr.<br/>Gly<br/>Fr.<br/>Gly<br/>Fr.<br/>Fr.<br/>Fr.<br/>Fr.<br/>Fr.<br/>Fr.<br/>Fr.<br/>Fr.<br/>Fr.<br/>Fr.</td><td>LB5           M           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa     Wa     Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Ar. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Astkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Irish German Atrikaner British British British British British British Belgian Japanese British Jewish Ashkenazi British Jewish Ashkenazi British Belgian Belgia</td><td>12           T         T           18         •••••           225         ••••           226         ••••           227         288           226         ••••           110         12           288         8           ••••         ••••           110         ••••           288         ••••           299         ••••           ••••         ••••           88         8           823         •••           223         238           233         8           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••</td></t<></td></t<>   | TAC<br>F<br>TAC<br>GCC<br>insTc<br>insTc<br>insTc<br>insTc<br>AAG<br>CAG<br>TAT<br>TAT<br>TGA<br>AAG<br>CAA<br>AAA<br>CAA<br>CAA<br>CAA<br>CAA<br>C   
   | G→T<br>G<br>G→T<br>A→C<br>Stop at 216<br>ins<br>G→A<br>G→A<br>G→A<br>C→A<br>Stop at 263<br>C→A<br>C→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>C→A<br>C→A<br>G→A<br>C→A<br>C→A<br>C→A<br>C→A<br>C→A<br>C→A<br>C→A<br>C  
  | No           H         No           No         No           Yess         No           Yess         No           Yess         No           Yess         No           Yess         No           Yess         No           No         No           Yess         No           Yess         No           No         No   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -   
   | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E207C-IRAQ S223Y 736delG R232W D235E C255X C25 C255X C2  | Asp<br>Asp<br>Asp<br>Asp<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Asp<br>Clu<br>Ser<br>Clu<br>Clu<br>Asp<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Ser<br>Clu<br>Clu<br>Ser<br>Clu<br>Clu<br>Ser<br>Clu<br>Clu<br>Clu<br>Clu<br>Ser<br>Clu<br>Clu<br>Clu<br>Clu<br>Clu<br>Clu<br>Clu<br>Clu<br>Clu<br>Clu  | Gly<br>Tyr<br>Tyr<br>Alaa<br>Fr.<br>Fr.<br>Cys<br>Gln<br>Tyr<br>Fr.<br>Gly<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Lys<br>Gln<br>Exp<br>Fr.<br>Gly<br>Fr.<br>Gly<br>Fr.<br>Gly<br>Fr.<br>Gly<br>Fr.<br>Gly<br>Fr.<br>Gly<br>Fr.<br>Fr.<br>Fr.<br>Fr.<br>Fr.<br>Fr.<br>Fr.<br>Fr.<br>Fr.<br>Fr.  | LB5           M           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa     Wa     Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Ar. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Astkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Irish German Atrikaner British British British British British British Belgian Japanese British Jewish Ashkenazi British Jewish Ashkenazi British Belgian Belgia</td><td>12           T         T           18         •••••           225         ••••           226         ••••           227         288           226         ••••           110         12           288         8           ••••         ••••           110         ••••           288         ••••           299         ••••           ••••         ••••           88         8           823         •••           223         238           233         8           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••</td></t<>  |
1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5    | Htz O Htz                      | Wa   | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian S. Air. Indian S. Jan. Ar. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Astkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Irish German Atrikaner British British British British British British Belgian Japanese British Jewish Ashkenazi British Jewish Ashkenazi British Belgian Belgia  | 12           T         T           18         •••••           225         ••••           226         ••••           227         288           226         ••••           110         12           288         8           ••••         ••••           110         ••••           288         ••••           299         ••••           ••••         ••••           88         8           823         •••           223         238           233         8           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••           •••         •••       |
| A         I           2865         2           289         2           239         2           239         2           239         2           2345         2           235         2           358         2           255         2           358         2           255         2           358         2           253         2           256         2           358         2           253         2           279         2           232         2           233         1           331         1           331         1           331         1           331         1           333         1           333         1           333         1           333         1           333         1           333         1           3306         1           326         2           284         2           292         2           306   
   | B         4           4         4           4         4           5         5           5         5           5         5           5         5           5         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7           8         8           8         8   |
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      | GAC           E           GAC           CAC           GAC           CAC           GAC           CAC           GAC           GAC           CAC           CAC           GAT           GAT           GAT  
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  | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>C->T<br>A->G<br>C->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C  | No           H         No           No         No           Yess         No           Yess         No           No         Yess           No         No           Yess         No           No         No           Yess         Yess           Yess         No           No         No           No         No           No         No           No         No   
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK I -<br>BstK I -<br>Rsa I +<br>Hae II +<br>Hae II +<br>Hae II +<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -   | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G8207 G233A G81ins7 G8207 G2328 G228 G2   
  | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp  | Gly<br>Tyr<br>Ala<br>Fr.<br>Lys<br>Gln<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly   | LB5           M           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa     Wa     Wa</td><td>2140+5: G&gt;A</td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Flinnish Austrian German Greek Irish Belgian German Afrikaner British Belgian Jewish Ashkenazi British Belgian British Belgian Belgian Belgian Belgian French-Canadian British British British British British British British Belgian British Belgian Bel</td><td>12           T         T           18        </td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz O Htz                      | Wa  
  | 2140+5: G>A | ?<br>R<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P  | S. Air. Indian S. Air. Indian S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Flinnish Austrian German Greek Irish Belgian German Afrikaner British Belgian Jewish Ashkenazi British Belgian British Belgian Belgian Belgian Belgian French-Canadian British British British British British British British Belgian British Belgian Bel  | 12           T         T           18   |
| A         I           2865         2           289         2           239         2           239         2           239         2           239         2           231         2           235         2           358         2           358         2           368         2           233         2           294         2           278         2           232         2           233         2           233         2           233         2           233         2           233         2           234         3           331         3           331         3           331         3           331         3           333         3           333         3           3306         3           3206         3           2319         4           294         2           296         2           298         4           294  
   | B         4           4         4           4         4           5         5           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           8         8           8         8           9         9   |
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  | TAC           F           TAC           GCC           ins7c           ins8c           AAG           CAG           TAT           TAT           TGA           AAG           CAG           GQC           AAG           CAA           AAC  
  | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A   | No           H           No           No           Yes           No           Yes           No           Yes           No           Yes           No           Yes           No           Yes           No  
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>Rsa I +<br>Hae II +<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Alu 1 -<br>Alu 1 -  | D200Y  J D203A G81ins7 D200Y D203A G81ins7 G81ins8 E2074 E2074 E2074 FRAQ S223Y 736delG R232W D235E C255X E256K H264Q D235E C255X E256K H264Q D280G D283N S285L S2  | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Cys<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu   
   | Gily<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Fr.<br>Giln<br>Tyr<br>Fr.<br>Stop<br>Cily<br>Stop<br>Tyr<br>Tyr<br>Gily<br>Asn<br>Leu<br>Leu<br>Stop<br>Tyr<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Cys<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Stop<br>Tyr<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop | LB5           M           LB5           LB5           LB5           LB5           LB5           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>F 2/508<br/>?<br/>P<br/>P<br/>F 5/115<br/>F 5/115<br/>P<br/>P<br/>F 4/791<br/>P<br/>P<br/>P<br/>F 4/791<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Air. Indian Costa Rican Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish British Austrian Flemish Belgian German Greek Inish British Belgian Jewish Ashkenazi British German Belgian Japanese Belgian Norwegian French-Canadian British S. Air. Coloured S. Air. Indian Norwegian Norwegian Belgian Japanese</td><td>12           18           0           11           14           11           14           12           23           23           23           23           23           23           23           24           8           02           25           26           27           29           11           8           8           8           23           8           8           23           8           22           23           8           22           23           8           223           8           223           8           9           177           17           17           17           17           17           17           17           17           17           17</td></t<>  | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz O Htz                      | Wa  | 2140+5: G>A |
?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>F 2/508<br>?<br>P<br>P<br>F 5/115<br>F 5/115<br>P<br>P<br>F 4/791<br>P<br>P<br>P<br>F 4/791<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P  | S. Air. Indian S. Air. Indian S. Air. Indian Costa Rican Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish British Austrian Flemish Belgian German Greek Inish British Belgian Jewish Ashkenazi British German Belgian Japanese Belgian Norwegian French-Canadian British S. Air. Coloured S. Air. Indian Norwegian Norwegian Belgian Japanese   | 12           18           0           11           14           11           14           12           23           23           23           23           23           23           23           24           8           02           25           26           27           29           11           8           8           8           23           8           8           23           8           22           23           8           22           23           8           223           8           223           8           9           177           17           17           17           17           17           17           17           17           17           17  |
| A         I           285         2           289         2           239         2           239         2           236         2           3364         2           237         2           238         2           256         2           354         2           255         2           353         6           239         2           256         2           353         6           236         2           294         2           294         2           233         0           233         0           234         3           331         3           333         3           236         3           333         3           236         3           333         3           236         3           306         3           319         4           328         2           284         4           328         3           328         <   
   | B         4           4         4           4         4           5         5           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7           8         8           8         8           9         9   |
C<br>661<br>671<br>681<br>682<br>682<br>735<br>757<br>728<br>829<br>829<br>829<br>910<br>917<br>931<br>938<br>979<br>931<br>938<br>979<br>931<br>1024<br>1027<br>1027<br>1027<br>1027<br>1027<br>1024<br>1048<br>1066<br>1066<br>1066<br>1066<br>1066<br>1066<br>1124<br>1066<br>11201<br>117201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12200<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>12201<br>1220  | D<br>2000<br>2013<br>2066<br>2077<br>2077<br>2255<br>2556<br>2556<br>2566<br>2802<br>2802<br>2802<br>2802<br>2823<br>2855<br>2864<br>2800<br>2829<br>2855<br>2864<br>2800<br>2829<br>285<br>2856<br>2800<br>2829<br>285<br>2856<br>2864<br>2800<br>2829<br>2856<br>2864<br>2800<br>2829<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2856<br>2857<br>2856<br>2856<br>2856<br>2857<br>2856<br>2857<br>2856<br>2857<br>2856<br>2857<br>2856<br>2857<br>2856<br>2857<br>2856<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857<br>2857 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  | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>ins<br>G->A<br>G->A<br>G->A<br>C->A<br>C->A<br>G->A<br>G->A<br>G->A<br>G->A<br>C->A<br>G->A<br>C->A<br>G->A<br>C->A<br>G->A<br>C->T<br>C->A<br>G->A<br>C->A<br>G->A<br>C->T<br>C->A<br>G->A<br>C->A<br>G->A<br>C->A<br>G->A<br>C->T<br>C->A<br>G->A<br>C->A<br>C->A<br>C->A<br>C->A<br>G->A<br>C->T<br>C->A<br>G->A<br>C->T<br>C->A<br>G->A<br>C->T<br>C->A<br>G->A<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->T<br>C->C<br>C->A<br>C->A<br>C->A<br>C->T<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->A<br>C->C<br>C->A<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C->C<br>C-> | No           H         No           No         No           Yess         No           Yess         No           Yess         No           Yess         No           Yess         No           Yess         No           No         No   
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BsitK I -<br>BsitK I -<br>BsitK I -<br>Taq 1 -<br>Mae II +<br>Alu 1 -<br>Alu 1 -  | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E2070 - IRAQ S223Y 738delG R232W D235E C255X C255X C255X C255X C255X C255K H264Q D233N S285L S265L S285L S285  | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>Glu<br>Ser<br>Gly<br>Asp<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   
   | Gily<br>Tyr<br>Tyr<br>Ala<br>Cryr<br>Fr.<br>Fr.<br>Gin<br>Tyr<br>Fr.<br>Gin<br>Cys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Gin<br>Lys<br>Cis<br>Stop<br>Fr.<br>Stop<br>Stop<br>Stop<br>Yra<br>His<br>Tyr<br>Tyr<br>Fr.<br>Stop<br>Pro  | LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa     P     Wa     Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Coolared French-Canadian Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Astkenazi Finnish Austrian Finnish Austrian Walloon Belgian German Greek Irish German Atrikaner British British British British Belgian Japanese British Jewish Ashkenazi Belgian Japanese Belgian Belgian Belgian French-Canadian Frinch-Canadian S. Air. Coloured S. Air. Indian Norwegian Japanese Danish</td><td>12           T         T           188         ***1           141         14           122         28           28         8           **2         28           ***2         28           ***3         8           23         ***3           8         8           233         ***3           8         8           233         ****3           8         8           233         ************************************</td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz O Htz                      | Wa     P     Wa   
  | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian S. Air. Indian S. Jan. Coolared French-Canadian Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Astkenazi Finnish Austrian Finnish Austrian Walloon Belgian German Greek Irish German Atrikaner British British British British Belgian Japanese British Jewish Ashkenazi Belgian Japanese Belgian Belgian Belgian French-Canadian Frinch-Canadian S. Air. Coloured S. Air. Indian Norwegian Japanese Danish  | 12           T         T           188         ***1           141         14           122         28           28         8           **2         28           ***2         28           ***3         8           23         ***3           8         8           233         ***3           8         8           233         ****3           8         8           233         ************************************  |
| A         I           285         2           289         2           239         2           239         2           236         2           237         2           231         2           255         2           358         2           255         2           358         2           256         2           358         2           256         2           303         0           231         2           236         2           237         0           238         0           233         0           233         0           233         0           233         0           233         0           331         2           304         3           333         2           254         2           300         2           319         4           328         2           328         2           328         2           2328         <   
   | B<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5<br>5<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6  | C<br>661<br>671<br>681<br>682<br>736<br>736<br>737<br>828<br>829<br>910<br>917<br>931<br>938<br>979<br>938<br>979<br>938<br>979<br>938<br>979<br>938<br>977<br>1027<br>1027<br>1023<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048   
  | D<br>2000<br>2013<br>2066<br>2077<br>2235<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>2555<br>255       | GAC           E           GAC           GAC <t< td=""><td>TAC<br/>F<br/>TAC<br/>GCC<br/>insTc<br/>insTc<br/>insTc<br/>insTc<br/>AAG<br/>CAG<br/>TAT<br/>TAT<br/>TAC<br/>TAT<br/>TAG<br/>CAG<br/>CAA<br/>CAA<br/>CAA<br/>CAA<br/>CAA<br/>CAA<br/>CAA<br/>CAA<br/>C</td><td>G→T<br/>G<br/>G→T<br/>A→C<br/>Stop at 216<br/>ins<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>C→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>C→A<br/>G→A<br/>C→A<br/>G→A<br/>C→A<br/>C→A<br/>C→A<br/>G→A<br/>C→A<br/>C→A<br/>C→A<br/>C→A<br/>C→A<br/>C→A<br/>C→A<br/>C</td><td>No           H         No           No         No           Yess         No           Yess         No           Yess         No           Yess         No           No         No           Yess         No           No         No           No         No           No         No           Yess         No           Yess         No           Yess         No           Yess         No           Yess         No           No         No</td><td>I<br/>Hae III +<br/>EcoR II +<br/>Msp 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>Psa 1 +<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Taq 1 -<br/>Mae II +<br/>Msp 1 -<br/>Msp 1 -</td><td>D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E2070 - IRAQ S223Y 736delG R232W D235E C255X C252 C252</td><td>Asp<br/>K<br/>Asp<br/>Asp<br/>Asp<br/>Asp<br/>Asp<br/>Asp<br/>Asp<br/>Asp<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td><td>Gly<br/>Tyr<br/>Tyr<br/>Ala<br/>Fr.<br/>Fr.<br/>Gln<br/>Tyr<br/>Fr.<br/>Gln<br/>Tyr<br/>Fr.<br/>Stop<br/>Gly<br/>Gly<br/>Gly<br/>Gly<br/>Gly<br/>Gly<br/>Gly<br/>Gly<br/>Gly<br/>Gly</td><td>LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa     Wa     Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>F 2/508<br/>?<br/>P<br/>P<br/>F 5/115<br/>F 5/115<br/>P<br/>P<br/>F 4/791<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Arr. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish British Austrian Finnish Austrian Walloon Belgian German Greek Inish Belgian German Afrikaner British British British British British British British Belgian Jewish Ashkenazi British Belgian French-Canadian British S. Air. Coloured S. Air. Indian Norwegian Japanese Danish S. Air. Indian</td><td>12           T         T           12         T           18         T           223         28           224         28           225         22           28         T           223         28           242         25           25         16           32         28           223         8           8         8           23         8           8         23           8         23           9         **2           211         14           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3</td></t<></td></t<>   
   | TAC<br>F<br>TAC<br>GCC<br>insTc<br>insTc<br>insTc<br>insTc<br>AAG<br>CAG<br>TAT<br>TAT<br>TAC<br>TAT<br>TAG<br>CAG<br>CAA<br>CAA<br>CAA<br>CAA<br>CAA<br>CAA<br>CAA<br>CAA<br>C   
   | G→T<br>G<br>G→T<br>A→C<br>Stop at 216<br>ins<br>G→A<br>G→A<br>G→A<br>G→A<br>C→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>C→A<br>G→A<br>C→A<br>G→A<br>C→A<br>C→A<br>C→A<br>G→A<br>C→A<br>C→A<br>C→A<br>C→A<br>C→A<br>C→A<br>C→A<br>C   | No           H         No           No         No           Yess         No           Yess         No           Yess         No           Yess         No           No         No           Yess         No           No         No           No         No           No         No           Yess         No           Yess         No           Yess         No           Yess         No           Yess         No           No         No  
  | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>Psa 1 +<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Mae II +<br>Msp 1 -<br>Msp 1 -  | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E2070 - IRAQ S223Y 736delG R232W D235E C255X C252 C252   | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys  
   | Gly<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Gln<br>Tyr<br>Fr.<br>Gln<br>Tyr<br>Fr.<br>Stop<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly<br>Gly  | LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa     Wa     Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>F 2/508<br/>?<br/>P<br/>P<br/>F 5/115<br/>F 5/115<br/>P<br/>P<br/>F 4/791<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Arr. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish British Austrian Finnish Austrian Walloon Belgian German Greek Inish Belgian German Afrikaner British British British British British British British Belgian Jewish Ashkenazi British Belgian French-Canadian British S. Air. Coloured S. Air. Indian Norwegian Japanese Danish S. Air. Indian</td><td>12           T         T           12         T           18         T           223         28           224         28           225         22           28         T           223         28           242         25           25         16           32         28           223         8           8         8           23         8           8         23           8         23           9         **2           211         14           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3</td></t<>  | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz                            | Wa   | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>F 2/508<br>?<br>P<br>P<br>F 5/115<br>F
5/115<br>P<br>P<br>F 4/791<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P                                 | S. Air. Indian S. Air. Indian S. Arr. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish British Austrian Finnish Austrian Walloon Belgian German Greek Inish Belgian German Afrikaner British British British British British British British Belgian Jewish Ashkenazi British Belgian French-Canadian British S. Air. Coloured S. Air. Indian Norwegian Japanese Danish S. Air. Indian  | 12           T         T           12         T           18         T           223         28           224         28           225         22           28         T           223         28           242         25           25         16           32         28           223         8           8         8           23         8           8         23           8         23           9         **2           211         14           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3         **3           **3                                |
| A         I           2865         2           289         2           239         2           239         2           239         2           239         2           235         2           354         2           255         2           358         2           255         2           358         2           255         2           358         2           255         2           358         2           253         2           256         2           257         2           232         2           233         1           331         1           331         1           331         1           333         1           333         1           333         1           333         1           333         2           306         2           286         2           284         2           284         2           282         <   
   | B<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4  | C<br>661<br>671<br>682<br>682<br>736<br>757<br>767<br>767<br>787<br>787<br>787<br>787<br>787<br>78  
  | D<br>2000<br>2020<br>2066<br>2077<br>2235<br>2556<br>2566<br>2644<br>2677<br>2800<br>2825<br>2920<br>2835<br>2920<br>2922<br>3028<br>3028<br>2922<br>3028<br>3029<br>3029<br>3029<br>3036<br>3035<br>30354<br>30357<br>3054<br>3057<br>3054<br>3057<br>3054<br>3057<br>3057<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3057<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3058<br>3       | GAC           TCA           GAC           TCA           GAC           TCA           GAC           TCA           CAC           GAC           CAC           GAC           CAC           CAC           CAC           CAC           CAC           CAC           CAC           CAC           CAC   
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAA<br>AAG<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>TTA<br>TTA<br>TTA<br>TAC<br>TAC<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>C  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A   | No           H           No           No           Yes           No           Yes           No           Yes           No           Yes           No   
  | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>Rsa I +<br>Hae II +<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Mae II +<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins7<br>682070 - IRAQ<br>S223Y<br>736delG<br>R232W<br>D238E<br>C255X<br>E256K<br>H264Q<br>D238E<br>C265X<br>E256K<br>H264Q<br>D280G<br>D283N<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L |
Asp<br>K<br>Asp<br>Asp<br>Asp<br>Asp<br>Asp<br>Glu<br>Glu<br>Glu<br>His<br>Ser<br>Gly<br>His<br>Ser<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   | Gly<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Fr.<br>Gln<br>Tyr<br>Fr.<br>Gln<br>Gly<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop   | LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz O Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian German German Greek Inish Belgian Atrikaner Atrikaner Atrikaner British British British British British British Belgian Japanese Belgian Belgi</td><td>12           18           18           11           14           122           28           8           122           28           8           122           28           14           12           28           12           28           12           28           12           29           28           8           23           23           38           9           23           38           9           23           38           9           24           17           17           17           12           214           13           37           12           12           12           12           12           12           12           12</td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz O Htz                      | Wa   | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian S. Air. Indian S. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian German German Greek Inish Belgian
Atrikaner Atrikaner Atrikaner British British British British British British Belgian Japanese Belgian Belgi  | 12           18           18           11           14           122           28           8           122           28           8           122           28           14           12           28           12           28           12           28           12           29           28           8           23           23           38           9           23           38           9           23           38           9           24           17           17           17           12           214           13           37           12           12           12           12           12           12           12           12   |
| A         I           285         2           289         2           239         2           239         2           236         2           237         2           238         2           256         2           356         2           255         2           356         2           255         2           358         2           256         2           256         2           256         2           256         2           256         2           256         2           256         2           256         2           253         0           278         0           233         0           233         0           233         0           333         1           236         1           306         1           333         1           254         1           284         2           284         2      292         230   
   | B         4           4         4           4         4           4         4           5         5           5         5           5         5           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           8         8           8         8           9         9           9         9           9         9           9         9           9         9 |
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    | GAC           E           GAC           GAC <t< td=""><td>TAC<br/>F<br/>TAC<br/>GCC<br/>ins7c<br/>ins7c<br/>ins7c<br/>ins7c<br/>AAG<br/>CAG<br/>TAT<br/>TAC<br/>TAC<br/>TAG<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>CAA<br/>AAC<br/>TTA<br/>TAC<br/>TAC<br/>TAC<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>CAG<br/>C</td><td>G→T<br/>G<br/>G→T<br/>A→C<br/>Stop at 216<br/>ins<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>C→A<br/>Stop at 263<br/>C→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G</td><td>No           H           No           Yes           No           Yes           No           Yes           No           No           Yes           No           No</td><td>I<br/>Hae III +<br/>EcoR II +<br/>Msp 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>Rsa 1 +<br/>Hae II +<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Taq 1 -<br/>Mae II +<br/>Msp 1 -<br/>Msp 1 -</td><td>D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G8207 G233A G81ins7 G8207 G232 G223 G223 G223 G223 G223 G223 G22</td><td>Asp<br/>K<br/>Asp<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td><td>Gly<br/>Tyr<br/>Tyr<br/>Ala<br/>Fr.<br/>Fr.<br/>Lys<br/>Gln<br/>Tyr<br/>Fr.<br/>Clys<br/>Gln<br/>Stop<br/>Lys<br/>Gly<br/>Asn<br/>Leu<br/>Leu<br/>Leu<br/>Leu<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Tyr<br/>Fr.<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr</td><td>LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa       P       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>F 2/508<br/>?<br/>P<br/>P<br/>F 5/115<br/>F 5/115<br/>P<br/>P<br/>F 4/791<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Ar. Coloured French-Canadian Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Insh German Afrikaner British British British British British British British Belgian Jewish Ashkenazi British Belgian Jewish Ashkenazi British S. Afr. Coloured S. Air. Indian Norwegian Japanese Denish S. Air. Indian Norwegian Japanese Denish S. Air. Indian Norwegian Japanese Denish S. Air. Indian Norwegian S. Air. Indian S. Air. Staken Scotho Jewish Ashkenazi</td><td>12           T         18           11         14           11         14           12         23           28         8           22         25           23         22           25         16           12         23           29         28           8         8           20         28           21         25           25         16           8         8           8         8           8         8           23         33           17         17           14        </td></t<></td></t<>  
  | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins7c<br>ins7c<br>ins7c<br>AAG<br>CAG<br>TAT<br>TAC<br>TAC<br>TAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAA<br>AAC<br>TTA<br>TAC<br>TAC<br>TAC<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>C  
  | G→T<br>G<br>G→T<br>A→C<br>Stop at 216<br>ins<br>G→A<br>G→A<br>G→A<br>G→A<br>C→A<br>Stop at 263<br>C→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G  | No           H           No           Yes           No           Yes           No           Yes           No           No           Yes           No  
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>Rsa 1 +<br>Hae II +<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Mae II +<br>Msp 1 -<br>Msp 1 -  | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G8207 G233A G81ins7 G8207 G232 G223 G223 G223 G223 G223 G223 G22   | Asp<br>K<br>Asp<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys  
  | Gly<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Clys<br>Gln<br>Stop<br>Lys<br>Gly<br>Asn<br>Leu<br>Leu<br>Leu<br>Leu<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Fr.<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr  | LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa       P       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>F 2/508<br/>?<br/>P<br/>P<br/>F 5/115<br/>F 5/115<br/>P<br/>P<br/>F 4/791<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Ar. Coloured French-Canadian Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Insh German Afrikaner British British British British British British British Belgian Jewish Ashkenazi British Belgian Jewish Ashkenazi British S. Afr. Coloured S. Air. Indian Norwegian Japanese Denish S. Air. Indian Norwegian Japanese Denish S. Air. Indian Norwegian Japanese Denish S. Air. Indian Norwegian S. Air. Indian S. Air. Staken Scotho Jewish Ashkenazi</td><td>12           T         18           11         14           11         14           12         23           28         8           22         25           23         22           25         16           12         23           29         28           8         8           20         28           21         25           25         16           8         8           8         8           8         8           23         33           17         17           14        </td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz                            | Wa       P       Wa  
   | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>F 2/508<br>?<br>P<br>P<br>F 5/115<br>F 5/115<br>P<br>P<br>F 4/791<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P                                 | S. Air. Indian S. Air. Indian S. Jan. Ar. Coloured French-Canadian Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Walloon Belgian German Greek Insh German Afrikaner British British British British British British British Belgian Jewish Ashkenazi British Belgian Jewish Ashkenazi British S. Afr. Coloured S. Air. Indian Norwegian Japanese Denish S. Air. Indian Norwegian Japanese Denish S. Air. Indian Norwegian Japanese Denish S. Air. Indian Norwegian S. Air. Indian S. Air. Staken Scotho Jewish Ashkenazi   | 12           T         18           11         14           11         14           12         23           28         8           22         25           23         22           25         16           12         23           29         28           8         8           20         28           21         25           25         16           8         8           8         8           8         8           23         33           17         17           14   |
| A         I           2865         2           289         2           239         2           239         2           239         2           239         2           231         2           235         2           356         2           255         2           368         2           255         2           368         2           255         2           303         0           303         0           254         2           278         0           278         0           232         0           233         0           234         -           331         -           331         -           331         -           331         -           331         -           331         -           331         -           331         -           331         -           331         -           331         -           3320  
   | B<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4  | C<br>661<br>671<br>682<br>682<br>736<br>757<br>767<br>828<br>829<br>910<br>917<br>931<br>938<br>979<br>938<br>979<br>938<br>979<br>938<br>979<br>938<br>979<br>1012<br>1027<br>1027<br>1027<br>1027<br>1027<br>1028<br>1046<br>1046<br>1066<br>1066<br>1066<br>1066<br>1066<br>1026<br>1024<br>1124<br>11243  
  | D<br>2000<br>2013<br>2066<br>207<br>223<br>2255<br>2566<br>264<br>267<br>283<br>285<br>264<br>267<br>283<br>285<br>290<br>283<br>285<br>290<br>283<br>292<br>3066<br>308<br>306<br>308<br>307<br>321<br>321<br>322<br>324<br>307<br>325<br>335<br>335<br>335<br>335<br>335<br>335<br>335   | GAC   
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAA<br>AAG<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>AAG<br>CAA<br>TTA<br>TTA<br>TTA<br>TAC<br>TAC<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>CAG<br>C  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A   | No           H           No           No           Yes           No           Yes           No           Yes           No           Yes           No   
  | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>Rsa I +<br>Hae II +<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Mae II +<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -   | D200Y<br>J<br>D200Y<br>D203A<br>681ins7<br>681ins7<br>682070 - IRAQ<br>S223Y<br>736delG<br>R232W<br>D238E<br>C255X<br>E256K<br>H264Q<br>D238E<br>C265X<br>E256K<br>H264Q<br>D280G<br>D283N<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L<br>S285L | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Clu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>Glu<br>G  
   | Gly<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Fr.<br>Gln<br>Tyr<br>Fr.<br>Stop<br>Cly<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop<br>Stop   | LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz Htz Htz Htz Htz Htz Htz Htz Htz Htz</td><td>Wa       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian German German Greek Inish Belgian Atrikaner Atrikaner Atrikaner British British British British British British Belgian Japanese Belgian Belgi</td><td>12           T         18           11         14           11         14           12         23           28         8           22         25           23         22           25         16           12         23           29         28           8         8           20         28           21         25           25         16           8         8           8         8           8         8           23         33           17         17           14        </td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz                            | Wa   | 2140+5: G>A | ?<br>R<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P  | S. Air. Indian S. Air. Indian S. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian German German Greek Inish Belgian Atrikaner Atrikaner Atrikaner British British British British British British Belgian Japanese Belgian Belgi   
  | 12           T         18           11         14           11         14           12         23           28         8           22         25           23         22           25         16           12         23           29         28           8         8           20         28           21         25           25         16           8         8           8         8           8         8           23         33           17         17           14   |
| A         I           285         2           286         2           230         2           231         2           235         2           236         2           237         2           235         2           256         2           356         2           255         2           353         2           255         2           353         2           256         2           353         2           254         2           278         2           233         1           233         1           233         1           233         1           233         1           3331         3           236         1           3331         2           3331         2           236         1           337         2           336         2           254         1           296         2           320         2           244   
   | B         4           4         4           4         4           4         4           5         5           5         5           5         5           5         5           5         5           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           6         6           7         7           7         7           7         7           7         7           7         7           7         7           7         7           7         7           8         8           8         8           9         9           9         9           9         9           9         9           9         9 |
C<br>661<br>671<br>681<br>682<br>736<br>776<br>776<br>776<br>828<br>829<br>910<br>917<br>931<br>917<br>931<br>1022<br>1024<br>1027<br>1027<br>1023<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>11201<br>1210<br>1211<br>1210<br>1211<br>1210<br>1211<br>1210<br>1211<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216<br>1216 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    | GAC           E           GAC           GAC <t< td=""><td>TAC           F           TAC           GCC           ins7c           ins8c           AAG           CAG           TAT           TGG           GAG           TAT           TGG           GAG           CAG           TGG           GAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAC           CAT           TAT           TAT</td><td>G-&gt;T<br/>G<br/>G-&gt;T<br/>A-&gt;C<br/>Stop at 216<br/>G-&gt;A<br/>G-&gt;A<br/>G-&gt;A<br/>G-&gt;A<br/>G-&gt;A<br/>G-&gt;A<br/>G-&gt;A<br/>G-&gt;A</td><td>No           H           No           Yes           No           Yes           No           Yes           No           Yes           No           No</td><td>I<br/>Hae III +<br/>EcoR II +<br/>Msp 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>Rsa 1 +<br/>Hae II +<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Bst 1 +<br/>Bsp 1286 I +<br/>Alu 1 -<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -</td><td>D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E207C IRAQ S223Y 736delG R232W D235E C255K C25K C2</td><td>Asp<br/>K<br/>Asp<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td><td>Gily<br/>Tyr<br/>Tyr<br/>Ala<br/>Fr.<br/>Fr.<br/>Giln<br/>Tyr<br/>Fr.<br/>Stop<br/>Gily<br/>Gily<br/>Gily<br/>Gily<br/>Gily<br/>Gily<br/>Gily<br/>Gily</td><td>LB6           M           LB5           LB5           LB5           LB5           LB5           LB5           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz   Htz</td><td>Wa       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>F 2/508<br/>?<br/>P<br/>P<br/>F 5/115<br/>F 5/115<br/>F 5/115<br/>P<br/>P<br/>F 4/791<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian<br/>S<br/>Spanish<br/>S. Air. Coloured<br/>French-Canadian<br/>Costa Rican<br/>S. Air. Indian<br/>Jewish Ashkenazi<br/>Flemish<br/>British<br/>Austrian<br/>Finnish<br/>Malloon<br/>Belgian<br/>German<br/>Greek<br/>Irish<br/>German<br/>Afrikaner<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>Stritish<br/>British<br/>British<br/>Stritish<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>Belgian<br/>Jewish Ashkenazi<br/>British<br/>German<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>British<br/>S. Air. Coloured<br/>S. Air. Indian<br/>S. Air. Indian</td><td>12           1           18           223           28           224           28           225           226           28           222           28           323           29           28           225           226           28           32           29           21           23           8           8           8           8           23           8           9          2           23           8           8           9          2           23           8           9          2           21           11           26          2           23          2           23          2           23          2           24          3          2</td></t<></td></t<>   
   | TAC           F           TAC           GCC           ins7c           ins8c           AAG           CAG           TAT           TGG           GAG           TAT           TGG           GAG           CAG           TGG           GAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAC           CAT           TAT           TAT   
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A   | No           H           No           Yes           No           Yes           No           Yes           No           Yes           No  
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>BstK 1 -<br>Rsa 1 +<br>Hae II +<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Bst 1 +<br>Bsp 1286 I +<br>Alu 1 -<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -  | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E207C IRAQ S223Y 736delG R232W D235E C255K C25K C2   | Asp<br>K<br>Asp<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   | Gily<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Giln<br>Tyr<br>Fr.<br>Stop<br>Gily<br>Gily<br>Gily<br>Gily<br>Gily<br>Gily<br>Gily<br>Gily  
  | LB6           M           LB5           LB5           LB5           LB5           LB5           LB5           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz   Htz</td><td>Wa       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>F 2/508<br/>?<br/>P<br/>P<br/>F 5/115<br/>F 5/115<br/>F 5/115<br/>P<br/>P<br/>F 4/791<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian<br/>S<br/>Spanish<br/>S. Air. Coloured<br/>French-Canadian<br/>Costa Rican<br/>S. Air. Indian<br/>Jewish Ashkenazi<br/>Flemish<br/>British<br/>Austrian<br/>Finnish<br/>Malloon<br/>Belgian<br/>German<br/>Greek<br/>Irish<br/>German<br/>Afrikaner<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>Stritish<br/>British<br/>British<br/>Stritish<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>British<br/>Belgian<br/>Jewish Ashkenazi<br/>British<br/>German<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>Belgian<br/>British<br/>S. Air. Coloured<br/>S. Air. Indian<br/>S. Air. Indian</td><td>12           1           18           223           28           224           28           225           226           28           222           28           323           29           28           225           226           28           32           29           21           23           8           8           8           8           23           8           9          2           23           8           8           9          2           23           8           9          2           21           11           26          2           23          2           23          2           23          2           24          3          2</td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz   Htz  | Wa   | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>F 2/508<br>?<br>P<br>P<br>F 5/115<br>F 5/115<br>F 5/115<br>P<br>P<br>F 4/791<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P                 | S. Air. Indian<br>S<br>Spanish<br>S. Air. Coloured<br>French-Canadian<br>Costa Rican<br>S. Air. Indian<br>Jewish Ashkenazi<br>Flemish<br>British<br>Austrian<br>Finnish<br>Malloon<br>Belgian<br>German<br>Greek<br>Irish<br>German<br>Afrikaner<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>Stritish<br>British<br>British<br>Stritish<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>British<br>Belgian<br>Jewish Ashkenazi<br>British<br>German<br>Belgian<br>Belgian<br>Belgian<br>Belgian<br>Belgian<br>British<br>S. Air. Coloured<br>S. Air. Indian<br>S. Air. Indian  | 12           1           18           223           28           224           28           225           226           28           222           28           323           29           28           225           226           28           32           29           21           23           8           8          
8           8           23           8           9          2           23           8           8           9          2           23           8           9          2           21           11           26          2           23          2           23          2           23          2           24          3          2   |
| A         1           265         2           286         2           289         2           336         2           3354         2           237         2           236         2           356         2           356         2           353         6           353         6           237         2           256         2           353         6           353         6           294         0           294         0           294         0           294         0           294         0           293         0           233         0           233         0           233         0           2333         0           234         0           305         2           254         0           305         2           286         0           327         0           284         0           328         0           328  
   | B<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5<br>5<br>5<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6  | C<br>661<br>671<br>681<br>682<br>735<br>737<br>736<br>737<br>736<br>737<br>736<br>737<br>737  
  | D<br>2000<br>2013<br>2066<br>2077<br>2273<br>2255<br>2556<br>2664<br>2853<br>2855<br>2900<br>2829<br>292<br>292<br>292<br>3066<br>3177<br>322<br>322<br>324<br>3290<br>321<br>322<br>324<br>3290<br>321<br>322<br>324<br>329<br>329<br>329<br>329<br>329<br>329<br>329<br>329  | GAC           TCA           AAA           TCC           GAC           CAC           GAC           CAC   
   | TAC<br>F<br>TAC<br>GCC<br>ins7c<br>ins8c<br>AAG<br>CAG<br>TAT<br>TGG<br>GAG<br>CAG<br>TAG<br>AAG<br>CAA<br>AAG<br>CAA<br>AAA<br>CCA<br>AAG<br>CAA<br>AAA<br>CCA<br>CAA<br>CA  
   | G->T<br>G<br>G->T<br>A->C<br>Stop at 216<br>(a)<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A<br>G->A  | No           H           No           Yes           No           Yes           No           Yes           No   
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>Fsa 1 +<br>Fsa 1 +<br>Hae II +<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -  | D200Y  J D203A G81ins7 G81ins7 G81ins8 E2070 - IRAQ S223Y 736delG R232W D236E C255X E256K H264Q D238E C255X E256K H264Q D283N S285L   | Asp<br>K<br>Asp<br>Cys<br>Chu<br>Chu<br>Cys<br>Chu<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   
  | Gly<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Fr.<br>Gln<br>Gln<br>Gln<br>Lys<br>Gly<br>Gly<br>Chy<br>Fr.<br>Tyr<br>Tyr<br>Tyr<br>Gly<br>Gly<br>Gly<br>Chy<br>Fr.<br>Gln<br>Chy<br>Fr.<br>Fr.<br>Fr.<br>Gln<br>Chy<br>Fr.<br>Fr.<br>Fr.<br>Chy<br>Fr.<br>Fr.<br>Chy<br>Chy<br>Chy<br>Chy<br>Chy<br>Chy<br>Chy<br>Chy<br>Chy<br>Chy  | LB5           M           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz</td><td>Wa       Pa       Wa       Waa       Waa  </td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Japanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Fiemish Austrian Finnish Austrian Waltoon Belgian German Afrikaner British British British British British British British British Belgian Japanese Belgian Belgian Belgian Belgian Belgian French-Canadian British S. Air. Coloured S. Air. Indian Norwegian French-Canadian British S. Air. Indian S. Air. Indian S. Air. Indian S. Air. Indian Belgian Belgi</td><td>12           18           19           112           18           111           14           122           28           8           122           28           112           22           28           112           22           28           112           29           112           29           11           29           11           20           11           21           12           12           12           12           12           12           12           12           12           13           21           13           21           12           13           12           13           12           13           14           15           16           17           17</td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz                             | Wa       Pa       Wa       Waa   | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian S. Air. Indian S. Japanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Fiemish Austrian Finnish Austrian Waltoon Belgian German Afrikaner British British British British British British British British Belgian Japanese Belgian Belgian Belgian Belgian Belgian French-Canadian British S. Air. Coloured S. Air. Indian Norwegian French-Canadian British S. Air. Indian S. Air. Indian S. Air. Indian S. Air. Indian Belgian Belgi  | 12           18           19           112           18           111           14           122           28           8           122           28           112           22           28           112           22           28           112           29           112           29           11           29           11           20           11           21           12           12           12           12           12           12           12           12           12           13           21           13           21           12           13           12           13           12           13           14           15           16           17           17  |
| A         I           285         2           289         2           239         2           239         2           236         2           237         2           238         2           256         2           354         2           255         2           358         2           256         2           358         2           256         2           253         0           278         0           278         0           233         0           233         0           233         0           233         0           233         0           233         0           233         0           233         0           233         0           334         1           337         0           254         1           306         2           306         2           306         2           306         2           296 <t< td=""><td>B<br/>4<br/>4<br/>4<br/>4<br/>4<br/>4<br/>4<br/>4<br/>4<br/>4<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5<br/>6<br/>6<br/>6<br/>6<br/>6<br/>6<br/>6<br/>6<br/>6<br/>6<br/>6<br/>6<br/>6</td><td>C<br/>661<br/>671<br/>681<br/>682<br/>736<br/>776<br/>776<br/>828<br/>829<br/>910<br/>917<br/>917<br/>931<br/>917<br/>931<br/>1022<br/>1024<br/>1022<br/>1024<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>1048<br/>11201<br/>1210<br/>1217<br/>1210<br/>1217<br/>1216<br/>1247<br/>1247<br/>1247<br/>1247<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1247<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246<br/>1246</td><td>D<br/>2000<br/>2013<br/>2066<br/>2066<br/>207<br/>207<br/>2255<br/>2556<br/>2556<br/>2556<br/>2855<br/>2855<br/>2855<br/>2900<br/>2833<br/>2855<br/>2900<br/>2833<br/>2905<br/>3068<br/>317<br/>321<br/>322<br/>3228<br/>3088<br/>317<br/>321<br/>322<br/>3228<br/>3088<br/>317<br/>321<br/>322<br/>3225<br/>3088<br/>317<br/>321<br/>322<br/>3225<br/>3088<br/>317<br/>321<br/>3225<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/>3255<br/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          E           GAC           GAC      <t< td=""><td>TAC           F           TAC           GCC           ins7c           ins7c           ins7c           ins7c           ins7c           GCC           AAG           AAG           CAG           TAT           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           CAG           CAG           CAG           CAG           CAG           CAG           CAG           CAG           GCC           AAC           TTA           TAG           GCC           AAC           TTA           TGG           CAG           CAG     <!--</td--><td>G→T<br/>G<br/>G→T<br/>A→C<br/>Stop at 216<br/>ins<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>C→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G</td><td>No           H           No           Yes           No           Yes           No           Yes           No           No           Yes           No           No</td><td>I<br/>Hae III +<br/>EcoR II +<br/>Msp 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>Rsa 1 +<br/>Hae II +<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Fnu4H 1 +<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -</td><td>D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G8207 G823Y T38delG R232W D235E C255X C255X C255X E256K H264Q E267K D280G D283N S285L S265L
S26</td><td>Asp<br/>K<br/>Asp<br/>Asp<br/>Asp<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td><td>Gly<br/>Tyr<br/>Tyr<br/>Ala<br/>Fr.<br/>Fr.<br/>Lys<br/>Gln<br/>Tyr<br/>Fr.<br/>Stop<br/>Cas<br/>Gln<br/>Lys<br/>Stop<br/>Fr.<br/>Gly<br/>Gly<br/>Gly<br/>Cas<br/>Cas<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Tyr<br/>Tyr<br/>His<br/>Stop<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr</td><td>LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz</td><td>Wa       P       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian Belgian German Afrikaner British British British British British British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British S. Air. Coloured S. Air. Indian Norwegian French-Canadian French-Canadian French-Canadian S. Air. Indian Norwegian S. Air. Indian Norwegian S. Air. Indian Belgian German German German Belgian German Belgian Bitish S. Air. Indian Norwegian S. Air. Indian Norwegian Bitish S. Air. Indian S. Air. Indian S. Air. Indian Belgian German German Belgian German Belgian Be</td><td>12           T         T           12         18           14         14           12         23           23         23           24         23           25         5           16         22           25         5           16         8           23         31           29         32           29         33           33         8           23         17           17         19           33         33           8         23           177         19           19        2           21         14          3         33          2         21           12         23          2         21           12         23          2         19           16         8           21         16</td></t<></td></td></t<></td></t<> | B<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6   | C<br>661<br>671<br>681<br>682<br>736<br>776<br>776<br>828<br>829<br>910<br>917<br>917<br>931<br>917<br>931<br>1022<br>1024<br>1022<br>1024<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>1048<br>11201<br>1210<br>1217<br>1210<br>1217<br>1216<br>1247<br>1247<br>1247<br>1247<br>1247<br>1246<br>1247<br>1246<br>1247<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1247<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246<br>1246  |
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| GAC           E           GAC           GAC <t< td=""><td>TAC           F           TAC           GCC           ins7c           ins7c           ins7c           ins7c           ins7c           GCC           AAG           AAG           CAG           TAT           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           CAG           CAG           CAG           CAG           CAG           CAG           CAG           CAG           GCC           AAC           TTA           TAG           GCC           AAC           TTA           TGG           CAG           CAG     <!--</td--><td>G→T<br/>G<br/>G→T<br/>A→C<br/>Stop at 216<br/>ins<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>C→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G</td><td>No           H           No           Yes           No           Yes           No           Yes           No           No           Yes           No           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S26</td><td>Asp<br/>K<br/>Asp<br/>Asp<br/>Asp<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td><td>Gly<br/>Tyr<br/>Tyr<br/>Ala<br/>Fr.<br/>Fr.<br/>Lys<br/>Gln<br/>Tyr<br/>Fr.<br/>Stop<br/>Cas<br/>Gln<br/>Lys<br/>Stop<br/>Fr.<br/>Gly<br/>Gly<br/>Gly<br/>Cas<br/>Cas<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Tyr<br/>Tyr<br/>His<br/>Stop<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr</td><td>LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz</td><td>Wa       P       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. 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Indian Belgian German German Belgian German Belgian Be</td><td>12           T         T           12         18           14         14           12         23           23         23           24         23           25         5           16         22           25         5           16         8           23         31           29         32           29         33           33         8           23         17           17         19           33         33           8         23           177         19           19        2           21         14          3         33          2         21           12         23          2         21           12         23          2         19           16         8           21         16</td></t<></td></td></t<> | TAC           F           TAC           GCC           ins7c           ins7c           ins7c           ins7c           ins7c           GCC           AAG           AAG           CAG           TAT           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           CAG           CAG           CAG           CAG           CAG           CAG           CAG           CAG           GCC           AAC           TTA           TAG           GCC           AAC           TTA           TGG           CAG           CAG </td <td>G→T<br/>G<br/>G→T<br/>A→C<br/>Stop at 216<br/>ins<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>C→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G</td> <td>No           H           No           Yes           No           Yes           No           Yes           No           No           Yes           No           No</td> <td>I<br/>Hae III +<br/>EcoR II +<br/>Msp 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>Rsa 1 +<br/>Hae II +<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Taq 1 -<br/>Fnu4H 1 +<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -</td> <td>D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G8207 G823Y T38delG R232W D235E C255X C255X C255X E256K H264Q E267K D280G D283N S285L S265L S26</td> <td>Asp<br/>K<br/>Asp<br/>Asp<br/>Asp<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td>
<td>Gly<br/>Tyr<br/>Tyr<br/>Ala<br/>Fr.<br/>Fr.<br/>Lys<br/>Gln<br/>Tyr<br/>Fr.<br/>Stop<br/>Cas<br/>Gln<br/>Lys<br/>Stop<br/>Fr.<br/>Gly<br/>Gly<br/>Gly<br/>Cas<br/>Cas<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Stop<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>Fr.<br/>Tyr<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>Tyr<br/>His<br/>Stop<br/>Fr.<br/>Tyr<br/>His<br/>Stop<br/>Tyr<br/>Tyr<br/>His<br/>Stop<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr<br/>Tyr</td> <td>LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz</td><td>Wa       P       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian Belgian German Afrikaner British British British British British British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British S. Air. Coloured S. Air. Indian Norwegian French-Canadian French-Canadian French-Canadian S. Air. Indian Norwegian S. Air. Indian Norwegian S. Air. Indian Belgian German German German Belgian German Belgian Bitish S. Air. Indian Norwegian S. Air. Indian Norwegian Bitish S. Air. Indian S. Air. Indian S. Air. Indian Belgian German German Belgian German Belgian Be</td><td>12           T         T           12         18           14         14           12         23           23         23           24         23           25         5           16         22           25         5           16         8           23         31           29         32           29         33           33         8           23         17           17         19           33         33           8         23           177         19           19        2           21         14          3         33          2         21           12         23          2         21           12         23          2         19           16         8           21         16</td></t<></td> | G→T<br>G<br>G→T<br>A→C<br>Stop at 216<br>ins<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>C→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G   | No           H           No           Yes           No           Yes           No           Yes           No           No           Yes           No  
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>BstK 1 -<br>BstK 1 -<br>Rsa 1 +<br>Hae II +<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Taq 1 -<br>Fnu4H 1 +<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -  | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G8207 G823Y T38delG R232W D235E C255X C255X C255X E256K H264Q E267K D280G D283N S285L S265L S26  | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys  
  | Gly<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Lys<br>Gln<br>Tyr<br>Fr.<br>Stop<br>Cas<br>Gln<br>Lys<br>Stop<br>Fr.<br>Gly<br>Gly<br>Gly<br>Cas<br>Cas<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Tyr<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Tyr<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Tyr<br>Fr.<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Stop<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>Fr.<br>Tyr<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>Tyr<br>His<br>Stop<br>Fr.<br>Tyr<br>His<br>Stop<br>Tyr<br>Tyr<br>His<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr  | LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz</td><td>Wa       P       Wa       Wa</td><td>2140+5: G&gt;A</td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian Belgian German Afrikaner British British British British British British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British S. Air. Coloured S. Air. Indian Norwegian French-Canadian French-Canadian French-Canadian S. Air. Indian Norwegian S. Air. Indian Norwegian S. Air. Indian Belgian German German German Belgian German Belgian Bitish S. Air. Indian Norwegian S. Air. Indian Norwegian Bitish S. Air. Indian S. Air. Indian S. Air. Indian Belgian German German Belgian German Belgian Be</td><td>12           T         T           12         18           14         14           12         23           23         23           24         23           25         5           16         22           25         5           16         8           23         31           29         32           29         33           33         8           23         17           17         19           33         33           8         23           177         19           19        2           21         14          3         33          2         21           12         23          2         21           12         23          2         19           16         8           21         16</td></t<>  | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz                             | Wa       P       Wa   | 2140+5: G>A | ?<br>R<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P  | S. Air. Indian S. Air. Indian S. Jan. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian Belgian German Afrikaner British British British British British British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British S. Air. Coloured S. Air. Indian Norwegian French-Canadian French-Canadian French-Canadian S. Air. Indian Norwegian S. Air. Indian Norwegian S. Air. Indian Belgian German German German Belgian German Belgian Bitish S. Air. Indian Norwegian S. Air. Indian Norwegian Bitish S. Air. Indian S. Air. Indian S. Air. Indian Belgian German German Belgian German Belgian Be  | 12           T         T           12         18           14         14           12         23           23         23           24         23           25         5           16         22           25         5           16         8           23         31           29         32           29         33           33         8           23         17           17         19           33         33           8         23           177         19           19        2           21         14          3         33          2         21           12         23          2         21           12         23          2         19           16         8           21         16  
      |
| A         I           2865         2           289         2           239         2           239         2           239         2           239         2           231         2           255         2           356         6           353         6           353         6           353         6           353         6           358         6           233         6           294         6           294         6           294         6           233         6           234         7           233         6           234         7           331         7           331         7           333         7           334         7           335         7           336         7           337         7           306         3           318         7           306         3           327         4      296         2  
   | B<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5  | C 661 671 681 682 682 731 736 757 767 828 829 910 917 797 931 938 979 938 979 938 979 938 1012 1027 1027 1023 1046 1066 1066 1066 1066 1066 1066 1066   
  | D<br>2000<br>2013<br>2066<br>207<br>223<br>2255<br>2566<br>264<br>267<br>283<br>285<br>290<br>285<br>290<br>285<br>292<br>292<br>292<br>3066<br>3066<br>306<br>306<br>306<br>306<br>305<br>335<br>335<br>335<br>335<br>335<br>335<br>335   | GAC   
   | TAC           F           TAC           GCC           ins7c           ins8c           AAG           CAG           TAT           TGG           GAG           TAT           TGG           GAG           TAT           TGG           GAG           TAT           TGG           GAG           AAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAG           CAA           AAC   
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  | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>Msp 1 -<br>BatK 1 -<br>BatK 1 -<br>BatK 1 -<br>Construction<br>Rsa 1 +<br>Hae II +<br>Hae II +<br>Hae II +<br>Hae II +<br>Bsp1286 1 +<br>Alu 1 -<br>Taq 1 -<br>Msp 1 - | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins8 E2070 - IRAQ S223Y 736delG R232W D235E C255X C225K C25K C  | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Cy<br>Cy<br>Cy<br>Cy<br>Cy<br>Cy<br>Cy<br>Cy<br>Cy<br>Cy<br>Cy<br>Cy<br>Cy   | Gly<br>Tyr<br>Tyr<br>Ala<br>Fr.<br>Fr.<br>Fr.<br>Gln<br>Tyr<br>Stop<br>Cly<br>Stop<br>Tyr<br>Tyr<br>Gly<br>Asn<br>Leu<br>Leu<br>Fr.<br>Tyr<br>Tyr<br>Gly<br>Asn<br>Leu<br>Fr.<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Tyr<br>Fr.<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Stop<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr<br>Tyr  
   | LB5           M           LB5           LB5           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz</td><td>Wa       Pa       Wa       Waa       Waa</td><td>2140+5: G&gt;A</td><td>?<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Air. Indian Costa Rican Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian German German Greek Irish British British British British British British Beigian Jewish Ashkenazi Japanese British German Beigian Japanese Beigian S. Air. Indian Norwegian French-Canadian British S. Air. Indian Norwegian German German Beigian S. Air. Indian S. Air. Indian Norwegian S. Air. Indian S. Air. Indian S. Air. Indian S. Air. Indian Busish Beigian German Beigian Beigian Beigian S. Air. Indian Norwegian Beigian Be</td><td>12           18           8           -22           28           225           28           -22           28           -22           28           -22           28           -22           28           -22           28           -22           28           -23           29           -11           -23           8           8           8           -23           8           8           -23           8           -23           8           -23           8           -23           8           -23           8           -33           -17           -22           211           -13           -27           19           -22           19           -22           19           -21           -22</td></t<>  | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz                             | Wa       Pa       Wa       Waa   | 2140+5: G>A | ?<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P   | S. Air. Indian S. Air. Indian S. Air. Indian Costa Rican Costa Rican S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian German German Greek Irish British British British British British British Beigian Jewish Ashkenazi Japanese British German Beigian Japanese Beigian S. Air. Indian Norwegian French-Canadian British S. Air. Indian Norwegian German German Beigian S. Air. Indian S. Air. Indian Norwegian S. Air. Indian S. Air. Indian S. Air. Indian S. Air. Indian Busish Beigian German Beigian Beigian Beigian S. Air. Indian Norwegian Beigian Be  | 12           18           8           -22           28           225           28           -22           28           -22           28           -22           28           -22           28           -22           28           -22           28           -23           29           -11           -23           8           8           8           -23           8           8           -23           8           -23           8           -23           8           -23           8           -23           8           -33           -17           -22           211           -13           -27           19           -22           19           -22           19           -21           -22   |
| A         I           285         2           285         2           239         2           239         2           231         2           237         2           238         2           236         2           236         2           236         2           255         2           358         2           256         2           358         2           256         2           353         6           2353         6           279         6           279         6           233         1           233         1           233         1           233         1           233         1           233         1           233         1           233         1           233         1           233         1           333         1           234         1           3327         4           2320         2           244   
   | B<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6   |
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        | GAC           E           GAC           GAC <t< td=""><td>TAC           F           TAC           GCC           ins7c           ins7c           ins7c           ins7c           ins7c           GCC           AAG           AAG           CAG           TAT           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           AAG           CAA           AAC           TTA           TAT           TAG           AAC           TAC           TAC           TAC           TAC           TAC           TAG           AAC           TAC           TAG           GCC           AGC     <!--</td--><td>G→T<br/>G<br/>G→T<br/>A→C<br/>Stop at 216<br/>ins<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>C→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G</td><td>No           H           No           Yes           No           Yes           No           Yes           No           No           Yes           No           No</td><td>I<br/>Hae III +<br/>EcoR II +<br/>Msp 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>Rsa 1 +<br/>Hae II +<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Taq 1 -<br/>Fnu4H 1 +<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -</td><td>D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G8207 G823Y T38delG R232W D235E C255X C255X C255X E256K H264Q E267K D280G D283N S285L S265L S26</td><td>Asp<br/>K<br/>Asp<br/>Asp<br/>Asp<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td><td>Gily<br/>Tyr<br/>Tyr<br/>Ala<br/>Gin<br/>Fr.<br/>Fr.<br/>Fr.<br/>Gin<br/>Stop<br/>Lys<br/>Gin<br/>Cys<br/>Gin<br/>Cys<br/>Gin<br/>Cys<br/>Gin<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td><td>LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz</td><td>Wa       Pa       Wa       Wa   <td>2140+5: G&gt;A</td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian Belgian German Afrikaner British British British British British British British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British S. Air. Coloured S. Air. Indian Norwegian French-Canadian French-Canadian S. Air. Indian Norwegian S. Air. Indian Belgian German German German German Belgian German Belgian Belgia</td><td>12           T         18           11         14           11         14           12         23           28         8           8         22           25         16           12         23           28         8           8         8           29         28           8         8           203         11           8         8           23         17           19         19           10         12           11         14           11         14           11         14           11         14           11         13           12         11           12         12           12         12           12         12           12         12           13         13           14         13           15         12           16         8           21         12</td></td></t<></td></td></t<>  
  | TAC           F           TAC           GCC           ins7c           ins7c           ins7c           ins7c           ins7c           GCC           AAG           AAG           CAG           TAT           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           TGG           CAG           AAG           CAA           AAC           TTA           TAT           TAG           AAC           TAC           TAC           TAC           TAC           TAC           TAG           AAC           TAC           TAG           GCC           AGC </td <td>G→T<br/>G<br/>G→T<br/>A→C<br/>Stop at 216<br/>ins<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>C→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G→A<br/>G</td> <td>No           H           No           Yes           No           Yes           No           Yes           No           No           Yes           No           No</td> <td>I<br/>Hae III +<br/>EcoR II +<br/>Msp 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>BstK 1 -<br/>Rsa 1 +<br/>Hae II +<br/>Alu 1 -<br/>Alu 1 -<br/>Alu 1 -<br/>Taq 1 -<br/>Fnu4H 1 +<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -<br/>Msp 1 -</td> <td>D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G8207 G823Y T38delG R232W D235E C255X C255X C255X E256K H264Q E267K D280G D283N S285L S265L S26</td> <td>Asp<br/>K<br/>Asp<br/>Asp<br/>Asp<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td> <td>Gily<br/>Tyr<br/>Tyr<br/>Ala<br/>Gin<br/>Fr.<br/>Fr.<br/>Fr.<br/>Gin<br/>Stop<br/>Lys<br/>Gin<br/>Cys<br/>Gin<br/>Cys<br/>Gin<br/>Cys<br/>Gin<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys<br/>Cys</td> <td>LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7      <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz</td><td>Wa       Pa       Wa       Wa   <td>2140+5: G&gt;A</td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian Belgian German Afrikaner British British British British British British British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British S. Air. Coloured S. Air. Indian Norwegian French-Canadian French-Canadian S. Air. Indian Norwegian S. Air. Indian Belgian German German German German Belgian German Belgian Belgia</td><td>12           T         18           11         14           11         14           12         23           28         8           8         22           25         16           12         23           28         8           8         8           29         28           8         8           203         11           8         8           23         17           19         19           10         12           11         14           11         14           11         14           11         14           11         13           12         11           12         12           12         12           12         12           12         12           13         13           14         13           15         12           16         8           21         12</td></td></t<></td>   | G→T<br>G<br>G→T<br>A→C<br>Stop at 216<br>ins<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>C→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G→A<br>G   | No           H           No           Yes           No           Yes           No           Yes           No           No           Yes           No  
   | I<br>Hae III +<br>EcoR II +<br>Msp 1 -<br>BstK 1 -<br>BstK 1 -<br>BstK 1 -<br>BstK 1 -<br>Rsa 1 +<br>Hae II +<br>Alu 1 -<br>Alu 1 -<br>Alu 1 -<br>Taq 1 -<br>Fnu4H 1 +<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -<br>Msp 1 -  | D200Y  J D203A G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G81ins7 G8207 G823Y T38delG R232W D235E C255X C255X C255X E256K H264Q E267K D280G D283N S285L S265L S26  | Asp<br>K<br>Asp<br>Asp<br>Asp<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys   
   | Gily<br>Tyr<br>Tyr<br>Ala<br>Gin<br>Fr.<br>Fr.<br>Fr.<br>Gin<br>Stop<br>Lys<br>Gin<br>Cys<br>Gin<br>Cys<br>Gin<br>Cys<br>Gin<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys<br>Cys  | LB5           M           LB5           LB5           LB5           LB5           LB6           LB6           LB6           LB6           LB6           LB7           LB7 <t< td=""><td>1<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2B<br/>2Bor5<br/>2Bor5</td><td>Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz</td><td>Wa       Pa       Wa       Wa   <td>2140+5: G&gt;A</td><td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td><td>S. Air. Indian S. Air. Indian S. Jan. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian Belgian German Afrikaner British British British British British British British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British S. Air. Coloured S. Air. Indian Norwegian French-Canadian French-Canadian S. Air. Indian Norwegian S. Air. Indian Belgian German German German German Belgian German Belgian Belgia</td><td>12           T         18           11         14           11         14           12         23           28         8           8         22           25         16           12         23           28         8           8         8           29         28           8         8           203         11           8         8           23         17           19         19           10         12           11         14           11         14           11         14           11         14           11         13           12         11           12         12           12         12           12         12           12         12           13         13           14         13           15         12           16         8           21         12</td></td></t<>   | 1<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2B<br>2Bor5<br>2Bor5 | Htz  Htz  Htz  Htz  Htz  Htz  Htz  Htz                             | Wa       Pa       Wa       Wa <td>2140+5: G&gt;A</td> <td>?<br/>R<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P<br/>P</td> <td>S. Air. Indian S. Air. Indian S. Jan. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian Belgian German Afrikaner British British British British British British British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British S. Air. Coloured S. Air. Indian Norwegian French-Canadian French-Canadian S. Air. Indian Norwegian S. Air. Indian Belgian German German German German Belgian German Belgian Belgia</td> <td>12           T         18           11         14           11         14           12         23           28         8           8         22           25         16           12         23           28         8           8         8           29         28           8         8           203         11           8         8           23         17           19         19           10         12           11         14           11         14           11         14           11         14           11         13           12         11           12         12           12         12           12         12           12         12           13         13           14         13           15         12           16         8           21         12</td> | 2140+5: G>A | ?<br>R<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P<br>P  | S. Air. Indian S. Air. Indian S. Jan. Spanish S. Air. Coloured French-Canadian Costa Rican S. Air. Indian Jewish Ashkenazi Flemish Austrian Finnish Austrian Finnish Austrian Belgian German Afrikaner British British British British British British British Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi Belgian Jewish Ashkenazi British S. Air. Coloured S. Air. Indian Norwegian French-Canadian French-Canadian S. Air. Indian Norwegian S. Air. Indian Belgian German German German German Belgian German Belgian Belgia  | 12           T         18           11         14           11         14           12         23           28         8           8         22           25         16           12         23           28         8           8         8           29         28           8         8           203         11           8         8           23         17           19         19           10         12           11         14           11         14           11         14           11         14           11         13           12         11           12         12           12         12           12         12           12         12           13         13           14         13           15         12           16         8           21         12  |

#### Table 1. continued

A	В	С	D	E	F	G	Н	1	J	K	L	M	N	0	Р	Q	R	S	T
321	9	1285	408	GTG	ATG	G->A	Yes	Mae II -	V408M - OSAKA	Val	Met	EGF	5	Htz	Wa		?	Japanese	• 3
347	9	1294	411	CTG	GTG	C->G	No		L411V	Leu	Val	EGF		Htz	Wa		Р	German	*5
267	9	1301	413	ACG	AAG	C->A	No		T413K	Thr	Lys	EGF	5	Htz	Wa		?	Spanish	18
309	9	1301	413	ACG	AGG	C->G	No		T413R	Thr	Arg	EGF		Htz	Wa		?-F	Belgian	**2
352	9	1301	413	ACG	AGG	C->G	No		T413R	Thr	Arg	EGF		Htz	Wa		?-F	Flemish - Walloon	28
330	9	1307	415	GTG	GOG	T->C	No	Msc I -	V415A	Val	Ala	EGF			Wa		Р	Dutch	22
298	9	1329	422	TGG	TGC	G->C	No		W422C	Trp	Cys	EGF	2Bor5	Htz	Wa		?	S. Afr. English - British	**3
258	10	1372	437	AGA	del2a	Stop at 438			1372delAG	Arg	Fr.	EGF		Htz	Wa		P	Austrian	*2
323	10	1469	469	TGG	TAG	G->A	No	Rmal+	W469X	Trp	Stop	EGF	1	Hmz	aa		Р	German	29
257	10	1474	471	GAC	AAC	G->A	Yes	Xcm I +	D471N	Asp	Asn	EGF		Htz	Wa		F 2/494	Austrian	*2
334	10	1567	502	GTG	del9a	del		Barn HI -	1567del9 - IRAQ	Val	Fr.	EGF			Wa		Р	Jewish Ashkenazi	23
289	11	1646	528	GGT	GAT	G->A	No		G528D	Gly	Asp	BOF	2A	Htz	Wa		?	Greek	**3
219	11	1650	529	GTG	del1c	Stop at 546			1650delG	Val	Fr.	BOF		Htz	Wa		Р	Danish	27
220	12	1730	556	TGG	TCG	G->C	No		W556S	Trp	Ser	EGF	1	Htz	Wa		F 8/61	Danish	9
351	12	1775	571	GGG	GAG	G->A	No		G571E	Gly	Glu	EGF	5	Htz	Wa		?	Flemish - Walloon	28
322	12	1784	574	CGG	CAG	G->A	Yes	Msp I -	R574Q	Arg	Gin	EGF		Htz	Wa		P	Japanese	• 3
310	12	1823	587	000	CTC	C->T	No		P587L	Pro	Leu	EGF		Htz	Wa		Р	Belgian	2
311	12	1840	593	TTT	del2a	Stop at 600			1840delTT	Phe	Fr.	EGF		Htz	Wa		Р	Belgian	2
350	13	1864	601	GAT	TAT	G->T	No	EcoR V -	D601Y	Asp	Tyr	EGF		Htz	Wa		P	Flemish	28
349	13	1978	639	CAG	TAG	C->T	No	Rma I +	Q639X	Gín	Stop	EGF		Htz	Wa		Р	Flemish	28
259	14	1998	645	TGG	TGA	G->A	No		W645X	Trp	Stop	EGFC		Htz	Wa		Р	Austrian	•2
268	14	2000	646	TGT	TAT	G->A	No		C646Y	Cys	Tyr	EGFC	2A	Htz	Wa		R	Spanish	18
346	14	2001	646	TGT	TGA	T->A	No		C646X	Cys	Stop	EGFC			Wa		Р	Swedish	31
357	14	2054	664	œ	CTG	C->T	Yes	Pst I +	P664L	Pro	Leu	EGFC					? - F 7/915	Dutch	24
312	14	2054	664	œ	CTG	C->T	Yes	Pst I +	P664L	Pro	Leu	EGFC	2B	Htz	Wa		?-F	Belgian	2
348	14	2054	664	CCG	CTG	C->T	Yes	Pst I +	P664L	Pro	Leu	EGFC	2B	Htz	Wa		? -F	Flemish - Walloon	28
315	14	2056	665	CAG	TAG	C->T	No	Aci I -	Q665X	Gin	Stop	EGFC		Htz	Wa		Р	Costa Rican	20
270	14	2085	674	ACC	del19c	Stop at 701			2085del19	Thr	Fr.	EGFC		Htz	Wa		Р	Spanish	18
293	14	2092	677	TGC	del1a	Stop at 707			2092delT	Cys	Fr.	EGFC		Htz	Wa		?	Greek-French	**3
260	14	2093	677	TGC	TAC	G->A	No		C677Y	Cys	Tyr	EGFC		Htz	Wa		F 3/530	Austrian	•2
313	14	2096	678	œ	CTG	C->T	Yes	Msp I -	P678L	Pro	Leu	EGFC		Htz	Wa		? -F	Belgian	**2
221	15	2177	705	ACC	ATC	C->T	No		T7051	Thr	lle	OLS		Htz	Wa		?	Danish	27
244	16	2356	765	AGC	TGC	A->T	No		S765C	Ser	Cys	OLS		Hmz	aa		P	S. Afr. Indian	12
281	16-17	2389	776	GTG	ATG	G->A	Yes	Nla III +	V776M	Val	Met	TΜ		Htz	Wa	1. Sec. 1.	?	Afrikaner	*1
340	17	2392	777	CTC	del9a	del	С.		2392del9	Leu	Fr.	TM		Htz	ab	186	P	German	•6
287	17	2441	793	CGG	CAG	G->A	Yes	Alu I +	R793Q	Ara	Gin	œ		Htz	Wa		P	S. Afr. Black - Xhosa	2

Each line represents a single LDLR mutation report. The columns contain the following informations and abbreviations:

A: Report number.

**B**: Exon number in which the mutation occured. Exons are numbered according to Südhof *et al.* (6) with respect to the translational initiation site given by Yamamoto *et al.* (5).

C: Nucleotide position in which the mutation occured.

**D**: Codon number in which the mutation occured. Codons are numbered according to Yamamoto *et al.* (5). Therefore, the 21 amino acids of the signal peptide (exon 1) are numbered in negative (from -21 to -1). Codon number 1 is the last codon of exon 1 and encodes the first amino acid (Ala) of the mature LDL receptor. If the mutation spans more than one codon, e.g., there is a deletion of several bases, only the first (5') deleted codon is entered.

E: Normal base sequence of the codon in which the mutation occured.

F: Mutated base sequence of the codon in which the mutation occured. If the mutation is a base pair deletion or insertion, this is indicated by «del» or «ins» followed by the number of bases deleted or inserted and the position of this deletion or insertion in the codon (a, b or c). The nucleotide position is the first that is deleted or the one preceding the insertion. For example, «del19c» is a deletion of 19 bases including the third base of the codon, «ins8b» is an insertion of 8 bases occuring between the second and the third base of the codon.

G: Concerns base substitutions. It gives the base change, by convention, read from the coding strand. If the mutation predicts a premature protein-termination, the novel stop codon position is given, e.g., «stop at 204».

**H**: Concerns events occuring at a CpG dinucleotide (only  $C \rightarrow T$  or  $G \rightarrow A$ ).

I: Concerns the restriction site that is lost, e.g., «Msp I -», or created, e.g., «Taq I +», by the mutation.

J: Mutation name according to Beaudet *et al.* (32). Missense mutations are designated by the codon number flanked by the single letter code of the normal amino acid prior and of the mutant amino acid after (e.g., Val to Met at codon 408 is designated «V408M»). Nonsense mutations are designated similarly exept that X is used to indicate any termination codon (e.g., Cys to stop at codon 134 is designated «C134X»). Frameshift, insertion and deletion mutations are designated by the nucleotide number followed by «ins» for insertion or «del» for deletion. The nucleotide position is the first that is deleted or the one preceding it in the case of insertions. Exact nucleotides are indicated for two or less bases (e.g., 617delG). For three or more bases, the insertion or deletion is specified by the size of the change (e.g. 681ins8 indicates a 8 bp insertion starting after nucleotide 681). For many of the mutations that have been reported this nomenclature has not been used. Therefore, the original name also appears in this column. These names were given according to the population or the city in which the mutation was reported first (e.g. TOKYO). **K**: Wild type amino acid.

L: Mutant amino acid. Deletion and insertion mutations which result in a frameshift are designated by «Fr. »; Nonsense mutations are designated by «Stop».

M: Protein domain in which the mutation occurs. «SP» for the signal peptide, «LB» for the ligand binding domain, «EGF» for the Epidermal Growth Factor precursor like domain, «OLS» for the O-linked sugar chains domain, «TM» for the transmembrane domain, and «CP» for the cytoplasmic domain. In the ligand-binding domain (LB), each of the seven repeats are numbered separately and according to their position with respect to the N-terminal end of the protein.

N: Functional class as defined by Hobbs et al. (40).

O: Clinical status according to Goldstein et al. (2): «Hmz» indicates homozygotes and «Htz» indicates heterozygotes.

P: Genotype: «aa» indicates homozygotes, «ab» indicates compound heterozygotes, and «Wa» indicates heterozygotes. Empty cases appear when no information is available. Q: Number of the report in which the second mutation identified in a compound heterozygote is described. When the second mutation is one of those omitted in the database, this mutation is briefly described with respect to the coding sequence. Finally, «?» indicates that the second mutation has not been identified.

**R**: Recurence of the mutation. «F» indicates a founder effect, «F 2/140» indicates that the mutation was found in two unrelated probands in a sample 140 FH patients, «R» indicates recurrent mutations, «?» indicates mutations that have been identified in at least two unrelated probands of different ethnic backgrounds but for which LDLR gene haplotypes are not described, «?–F» indicates mutations for which LDLR gene haplotypes are not described (or incomplete) and that either are associated with a founder effect in the proband's ethnic or geographic origin, or have been identified in at least two unrelated probands of the same ethnic or geographic background, and «P» indicates mutations identified, to date, in a single proband.

S: Ethnic or geographic background of the proband.

T: Reference number indicating the publication in which the mutation is described. Full citations (authors, year, title, journal, volume, pages) are provided with the database. If the same mutation has been reported for the same patient in different papers, only one entry is made.

\*Indicates the co-authors who provided the information: \*1 (Rochelle Thiart and Maritha J. Kotze), \*2 (Helena Schmidt and Gert M. Kostner), \*3 (Yasuko Miyake and Taku Yamamura), \*4 (Heike Baron and Herbert Schuster), \*5 (Margit Ebhardt and Manfred Stuhrmann) and \*6 (Hartmut Schmidt).

\*\*Indicates submitted papers: \*\*1 (O.Loubser et al.), \*\*2 (A.Peeters et al.) and \*\*3 (M.Callis et al.).

Table 2. Each line represents a single LDLR mutation report

First mutation	1										Second mutation		1.1									0	B	S	TT
J	в	C	D	E	F	G	К	L	M	Р	J	В	С	D	E	F	G	к	L	м	Ρ				
W-18X	1	12	-18	TGG	TGA	G->A	Try	Stop	99 99	Wa	E256K	6	829	256	GAG	AAG	G->A	Glu	Lys	LB7	Wa	Htz	Р	Spanish	18
Q71E	3	274	71	CAA	GAA	C->G	Gin	Glu	LB2	Wa	313+1(G->C)	3	313+1	-	-	-	G->C		-	LB3	Wa	Htz	Р	Spanish	18
C95R	4	346	95	TGC	000	T->C	Cys	Arg	LB3	Wa	D679E	14	2100	679	GAC	GAG	C->G	Asp	Glu	EGFC	Wa	Htz	P	Spanish	18
654ins6	4	654	197	GGT	ins6c	ins	Gly	Fr	LB5		657del5	4	657	198	GGC	del5c	del	Gly	Fr	LB5			Р	German	37
C281Y	6	905	281	TGC	TAC	G->A	Cys	Tyr	LB7	Wa	1706-10(G->A)	11	1706-10	-	-	-	G->A	-	-	EGF	Wa	Htz	Р	Spanish	18
D333A	8	1061	333	GAT	GTC	A->C	Asp	Ala	EGFB	aa	2140+5(G->A)	14	2140+5	-	-	-	G->A	-	-	EGF	aa	Hmz	Р	Austrian	*2
1115del9	8	1115	351	GAG	del9b	del	Glu	Fr	EGFB	Wa	115ins6	8	1115	351	GAG	ins6a	ins	Glu	Fr	EGFB	Wa	Htz	F 2/-	Japanese	34
Q363X	8	1150	363	CAG	TAG	C->T	Gln	Stop	EGFB	Wa	D365E	8	1158	365	GAC	GAG	C->G	Asp	Glu	EGFB	Wa	Htz	Р	Cypriot	33
N543H	11	1690	543	AAT	CAT	A->C	Asn	His	EGF	Wa	2393del9	17	2393	777	CTC	del9b	del	Leu	Fr	TM	Wa	Htz	? - F 2/63	Danish	36
N543H	11	1690	543			A->C		His	EGF	Wa	2393de19	17	2393	777	CTC	del9b	del	Leu	Fr	TM	Wa	Htz	? - F 10/184	Dutch	35
A585T	12	1816	585	GOC	ACC	G->A	Ala	Thr	EGF	Wa	G654S	14	2023	654	GGC	AGC	G->A	Gly	Ser	EGFC	Wa	Htz	F 2/530	Austrian	•2

Footnotes as for Table 1.

current version as well as specific phenotypic data would be gratefully received by the corresponding authors.

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#### REFERENCES

- 1 Goldstein, J. and Brown, M. (1985) Annu. Rev. Cell. Biol., 1, 1–39.
- 2 Goldstein, J. and Brown, M. (1989) In Scriver, C.R., Beaudet, A.L. and Sly, W.S. (Eds) *The Metabolic Basis of Inherited Diseases -6th Edition*. McGraw-Hill, New-York, pp 1215–1250.
- 3 Varret, M., Rabès, J.-P., Collod-Béroud, G., Junien, C., Boileau, C. and Béroud, C. (1997) *Nucleic Acids Res.*, **25**, 172–180.
- 4 Lindgren, V., Luskey, K. L., Russell, D. W. and Francke, U. (1985) Proc. Natl. Acad. Sci. USA, 82, 8567–8571.
- 5 Yamamoto, T., Davis, C. G., Brown, M. S., Schneider, W. J., Casey, M. L., Goldstein, J. L. and Russell, D. W. (1984) *Cell*, **39**, 27–38.
- 6 Südhof, T. C., Russell, D. W., Goldstein, J. L. and Brown, M. S. (1985) *Science*, 228, 893–895.
- 7 Varret, M., Rabès, J.-P. and Boileau, C. (1997) Med. Sci., 13, In press.
- 8 Day, I., Whittall, R., O'Dell, S., Haddad, L., Bolla, M., Gudnason, V. and Humphries, S. (1997) *Hum. Mut.*, 10, 116–127.
- 9 Jensen, H., Holst, H., Jensen, L., Jorgensen, M., Andreasen, T., Jensen, T., Andreasen, B., Heath, F., Hansen, P., Neve, S., et al. (1997) Atherosclerosis, 131, 67–72.
- 10 Kotze, M. J., Thiart, R., Loubser, O., de Villiers, J. N. P., Santos, M., Vargas, M. A. and Peeters, A. V. (1996) *Hum. Genet.*, 98, 476–478.
- 11 Vuorio, A. F., Turtola, H. and Kontula, K. (1997) *Clin. Genet.*, **51**, 191–195.
- 12 Kotze, M. J., Loubser, O., Thiart, R., de Villiers, J. N. P., Langenhoven, E., Theart, L., Steyn, K., Marais, D. A. and Raal, F. J. (1997) *Clin. Genet.*, 51, 394–398.
- 13 Cenarro, A., Jensen, H. K., Civeira, F., Casao, E., Ferrando, J., Gonzalezbonillo, J., Pocovi, M. and Gregersen, N. (1996) *Clin. Genet.*, 49, 180–185.
- 14 Assouline, L., Leitersdorf, E., Lambert, M., Reshef, A., Feoli-Fronseca, J. C. and Levy, E. (1997) *Hum. Mut.*, 9, 555–562.

- 15 Descamps, O., Hondekjin, J. C., Van Acker, P., Deslypere, J. P. and Heller, F. R. (1997) *Clin. Genet.*, **51**, 303–308.
- 16 Mavroidis, N., Traeger-Synodinos, J., Kanavakis, E., Drogari, E., Matsaniotis, N., Humphries, S. E., Day, I. N. M. and Kattamis, C. (1997) *Hum. Mut.*, 9, 274–276.
- 17 Day, I. N. M., Haddad, L., O'Dell, S. D., Day, L. B., Whittall, R. A. and Humphries, S. E. (1997) J. Med. Genet., 34, 111–116.
- 18 Cenarro, A., Jensen, H. K., Casao, E., Civeira, F., Gonzalez-Bonillo, J., Rodriguez-Rey, J. C., Gregersen, N. and Pocovi, M. (1998) *Hum. Mut.*, In press.
- 19 Thiart, R., Loubser, O., de Villiers, J. P. N., Marx, M. P., Zaire, R., Raal, F. J. and Kotze, M. J. (1998) *Hum. Mut.*, In press.
- 20 Thiart, R., Loubser, O., de Villiers, J. N. P., Santos, M. and Kotze, M. J. (1998) *Mol. Cell Probes*, In press.
- 21 Leren, T. P., Tonstad, S., Gundersen, K. E., Bakken, K. S., Rodningen, O. K., Sundvold, H., Ose, L. and Berg, K. (1997) J. Int. Med., 241, 185–194.
- 22 Lombardi, P., Defesche, J., Kamerling, S. W. A., Kastelein, J. J. P. and Havekes, L. M. (1997) *Clin. Genet.*, **51**, 286–287.
- 23 Reshef, A., Nissen, H., Triger, L., Hensen, T. S., Eliav, O., Schurr, D., Safadi, R., Gare, M. and Leitersdof, E. (1996) *Hum. Genet.*, 98, 581–586.
- 24 Defesche, J. C., van de Ree, M. A., Kastelein, J. J. P., van Diermen, D. E., Janssens, N. W. E., van Doormaal, J. J. and Hayden, M. R. (1992) *Clin. Genet.*, 42, 273–280.
- 25 Koivisto, U. M., Gylling, H., Miettinen, T. A. and Kontula, K. (1997) Arterioscler. Thromb. Vasc. Biol., 17, 1392–1399.
- 26 Langenhoven, E., Warnich, L., Thiart, R., Rubinsztein, D. C., van der Westhuysen, D. R., Marais, A. D. and Kotze, M. J. (1996) *Atherosclerosis*, 125, 111–119.
- 27 Jensen, H. K., Jensen, L. G., Hasen, P. S., Faergman, O. and Gergersen, N. (1996) *Clin. Chem.*, 42, 1140–1146.
- 28 Descamps, O., Hondekjin, J.-C., Vanaker, P., Deslypere, J.-P. and Heller, F.-R. (1997) *Atherosclerosis*, **130** (Supplement), S26.
- 29 Schuster, H., Keller, C., Wolfram, G. and Zollner, N. (1995) Aterioscler. Throm. Vasc. Biol., 15, 2176–2180.
- 30 Schuster, H., Manke, C., Ficher, J., Keller, C., Wolfram, G. and Zollner, N. (1995) *Clin. Genet.*, 48, 90–92.
- 31 Ekstrom, U., Abrahamson, M., Sveger, T., Lombardi, P. and Nilsson-Ehle, P. (1995) *Hum. Genet.*, 96, 147–150.
- 32 Beaudet, A. L. and Tsui, L.-C. (1993) Hum. Mut., 2, 245-248.
- 33 Kotze, M. J., de Villiers, J. N. P., Loubser, O., Thiart, R., Scholtz, C. and Raal, F. J. (1997) *Hum. Genet.*, **100**, 101–103.
- 34 Yamakawa-Kobayashi, K., Kobayashi, T., Yanagi, H., Shimakura, Y., Satoh, J. and Hamaguchi, H. (1994) *Hum. Genet.*, **93**, 625–628.
- 35 Lombardi, P., Kamerling, S. W. A., Defesche, J. C., Kastelein, J. J. P. and Havekes, L. M. (1996) *Clin. Genet.*, **50**, 525–526.
- 36 Jensen, H. K., Jensen, T. G., Faergeman, O., Jensen, L. G., Andresen, B. S., Corydon, M. J., Andreasen, P. H., Hansen, P. S., Heath, F., Bolund, L. and Gregersen, N. (1997) *Hum. Mut.*, 9, 437–444.
- 37 Geisel, J., Holzem, G. and Oette, K. (1995) Hum. Genet., 96, 301-304.
- 38 Mehta, K. D., Chen, W.-J., Goldstein, J. L. and Brown, M. S. (1991) J. Biol. Chem., 266, 10406–10414.
  - 39 Cooper, D. N. and Krawczak, M. (1990) Hum. Genet., 85, 55-74.
  - 40 Hobbs, H. H., Brown, M. S. and Goldstein, J. L. (1992) Hum. Mutat., 1, 445–466.