Supplementary material

A gain-of-function mutation in the *CLCN2* chloride channel gene causes primary aldosteronism

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Supplementary Table 1: Expression of plasma membrane chloride channels in the human adrenal cortex.

Gene name	protein	mRNA expression*
CLCN2	ClC-2	1.65±0.23/1.16±0.18**
CLCN1	ClC-1	0.51±0.07
CFTR	CFTR	0.46±0.05
LRRC8A [$]	LRRC8A	1.09±0.22
LRRC8B [#]	LRRC8B	0.62±0.14/0.42±0.041**
LRRC8C [#]	LRRC8C	2.11±0.22
LRRC8D [#]	LRRC8D	9.95±0.84
LRRC8E [#]	LRRC8E	0.79±0.11
TMEM16A	Anoctamin-1	0.44±0.065

*mRNA expression was retrieved from a transcriptome study including 123 APA and 11 CA [1]. Values represent median centred, log2-transformed and model-adjusted expression levels respresented as mean±SEM. **Values represent expression levels detected by two different probes. [$]Essential and [#]non-essential components of the volume-regulated anion channel (VRAC) [2].

Supplementary Table 2. Primers used for *CLCN2* sequence

Exon	**Forward primer**	**Reverse primer**
1	CAGGACAGAGCCGGAACC	GGACAGGATTAGGGTAGGCC
2	CATAAGCATGGTCCACTCCC	AGCAGCTCTAATGGCCTCTG
10	AGGCTCCTTTTCACTCAGGT	CCTGTTTTGACTGGGCCATT

Supplementary Table 3. Primers used for real-time RT-qPCR

Gene Symbol	Forward primer	Reverse primer
18S	CCCTGCCTTTGTACACACC	CGATCCGAGGGCCTCACTA
HPRT	CTCAACTTTAACTGGAAAGAATGTC	TCCTTTTCACCAGCAAGCT
GAPDH	TGCACCACCAACTGCTTAGC	GGCATGGACTGTGGTCATGAG
CLCN2	TTGATCCTGCTCCCTTCCAG	CATAAGCATGGTCCACTCCC
StAR	ATGAGTAAAGTGGTCCCAGATG	ACCTTGATCTCCTTGACATTGG
CYP21A2	GAGTAGTCTCCCAAGGACAGGT	GTGGTGCTGAACTCCAAGAGGA
CYP11B2	GTGTGGAAGGAGCACTTTGAGG	GATGCCTGTGTAGTGTTGAGGC

References

1. Boulkroun, S. *et al.* Prevalence, Clinical, and Molecular Correlates of KCNJ5 Mutations in Primary Aldosteronism. *Hypertension* **59**, 592-8 (2012).
2. Voss, F.K. *et al.* Identification of LRRC8 heteromers as an essential component of the volume-regulated anion channel VRAC. *Science* **344**, 634-8 (2014).