Impact of diabetic stress conditions on renal cell metabolome – Supplementary material

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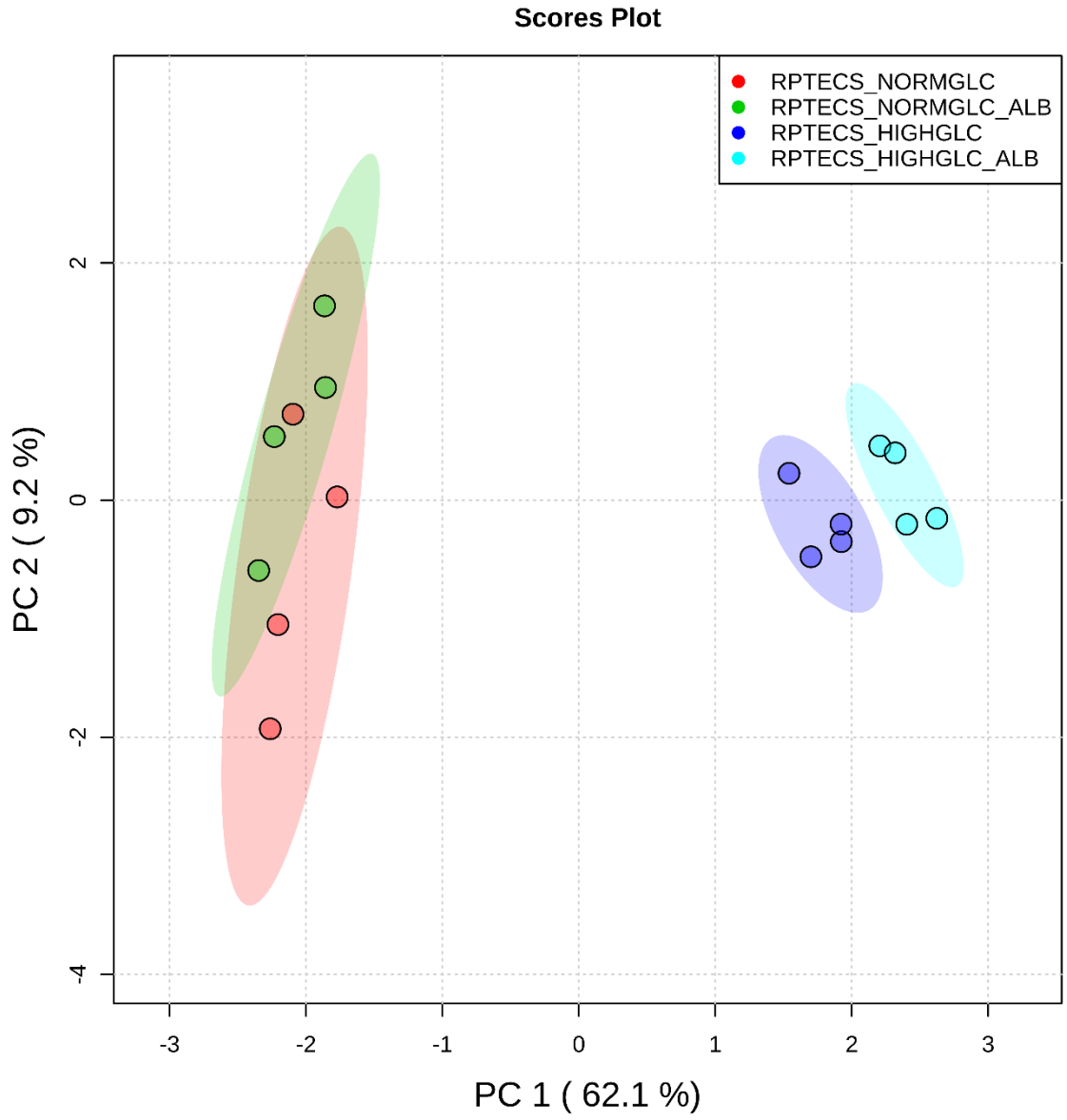
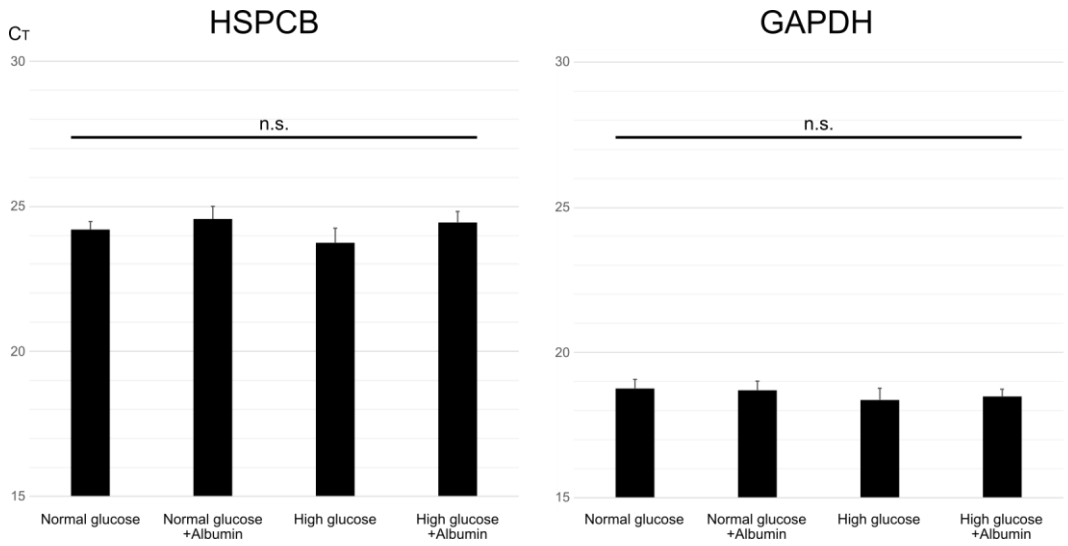
Supplementary Table 1: Primers used in this study for qPCR analyses.

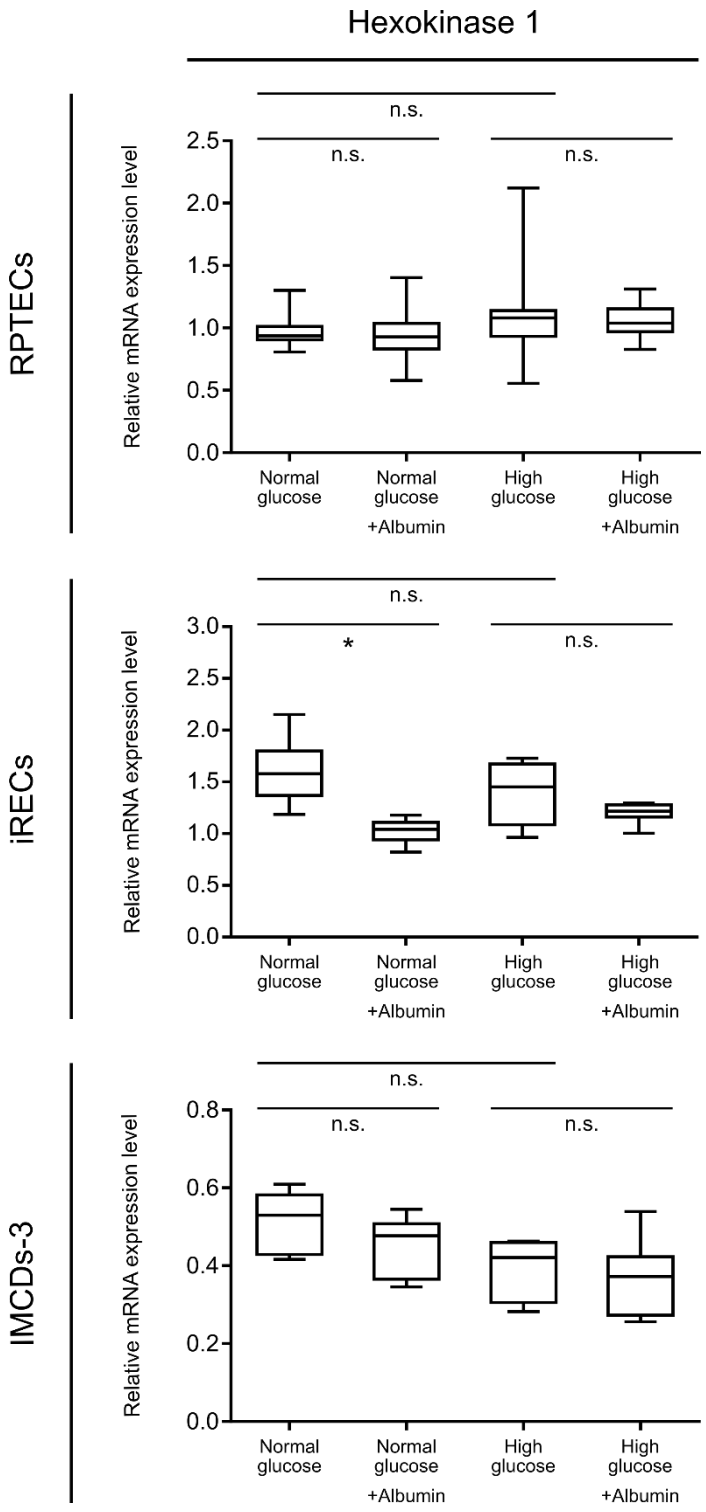
Gene	Accession number		Sequence	Source
mTBP	NM_013684	FP	5'-CCCCTTGTACCCTTCACCAAT-3'	
		RP	5'-GAAGCTGCGGTACAATTCCAG-3'	[44]
mHk1	NM_001146100	FP	5'-GAAAGGAGACCAACAGCAGAGC-3'	
		RP	5'-TTCGTTCCTCCGAGATCCAAGG-3'	
mSord	NM_146126	FP	5'-GGATGGTCACTTTGCTTGTGGC-3'	
		RP	5'-GGTCTCTTTGCCAACCTGGATG-3'	
mAkr1b3	NM_009658	FP	5'-GGTGAAAGGAGCCTTCCAGAAG-3'	
		RP	5'-ATCCAGTGGGAAATAGTCGGGC-3'	
hHK1	NM_000188.2	FP	5'-CTGCTGGTGAAAATCCGTAGTGG-3'	
		RP	5'-GTCCAAGAAGTCAGAGATGCAGG-3'	[45]
hAKR1B1	NM_001628	FP	5'-CCAACTTCAACCATCTCCAGGTG-3'	
		RP	5'-GTCACCACGATGCCTTTGGACT-3'	
hSORD	NM_003104	FP	5'-GCCGATACAATCTGTCACCTTCC-3'	
		RP	5'-CGCCTTCCTCAAAGGTGACATTG-3'	
hGAPDH	NM_001256799.2	FP	5'-GTCTCCTCTGACTTCAACAGCG-3'	
		RP	5'-ACCACCCTGTTGCTGTAGCCAA-3'	[46]
hHSPCB	NM_001271969	FP	5'-CTCTGTCAGAGTATGTTTCTCGC-3'	
		RP	5'-GTTTCCGCACTCGCTCCACAAA-3'	



Supplementary Figure 1: Principal component analysis of RPTECs. PC2 reflected the biological variance and was not affected by glucose or albumin concentration.



Supplementary Figure 2: Ct values of housekeeping genes used for quantitative RT-PCR in RPTECs. Expression levels of both housekeeping genes used for this study are not dependent on glucose or albumin concentrations. Columns display mean Ct- values of three replicates with 95% confidence interval (error bars). Ct – cycle threshold; HSPCB – heat shock 90kDa protein 1, beta; GAPDH – glyceraldehyde-3-phosphate dehydrogenase; n.s. – not significant.



Supplementary Figure 3 : Relative mRNA expression level of hexokinase 1 as detected by qPCR analysis. Comparison between normal and high glucose, high glucose w/wo albumin overload and normal glucose w/wo albumin overload. Data are shown for RPTECs (upper line), iRECs (intermediate line) and IMCD-3 (lower line). Boxplots display mean values of three replicates with 95% confidence interval (whiskers). p-values: n.s. not significant, * <0.05.

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