

**ESM Table 2 - Primer sequences used for qRT-PCR**

Target	Mouse (for/rev)	Rat (for/rev)	Human (for/rev)
Slc30a1	ACTCAGTGTGCCCTGAAGCA GCATCCTTCCCAGAATGCA	CCCAGCTTCATACATGCAGGTG CCTTGCTCTTCTCCCCTATATGCT	
Slc30a2	CCCGACCAGCCACCAA CCAAGGATCTCGGCTCGAT		
Slc30a3	GGTGGTTGGTGGGTATTTAGCA CAAGTGGGCGGCATCAGT	TCCTCTTCTCTATCTGCGCCC TGTGCGGAGGCAACGTGGTAA	
Slc30a4	CATCGCTGCCGTCTCTAC ATTTGCCATGTATCCACCTACAAG	GATCGGAGAGCTTGTAGGTGGATA ACACCAGCATGACACTGATCATGG	
Slc30a5	CTGTTTGCTGCCCTGATGAG CGGCCATACCCATAGGAGAA		
Slc30a6	TGAGCCCGGTTATTCTTCTGA CCGCGATTAAGACCCAAACTAT	GCTGACCGAAGGTCTTGGGAAGA TAGGCAGCGCTAGGTCTCCTCAC	
Slc30a7	ATGTTGCCCTGTCCATCAAGG TCGGAGATCAAGCCTAGGCAGT	ATGTTGCCCTGTCCATCAAGG TCGGAGATCAAGCCTAGGCAGT	
Slc30a8	CGCAGTTGATGGCGTGATC TGGTTCACAGTCAGTGACCAGAT	GGTGGACATGTTGCTGGGAG CACCAGTCACCACCCAGATG	TGGCCACAATCACAAGGAAGT CAAGGGCATGCACAAAAGC
Slc30a9	GTAGGGACATTGGCTGCTTAGG TTCAACACAGGCTGGCTGAA		
Slc30a10	TTTCCCCTCCCTGGATCAG ACACAGGCTCAAAGAAACGAGAT		
Slc39a1	CAGACGTGGTCAGGGACATTAG TGTA CTGCCTGGCCTCTGACT		
Slc39a2	TGGCGGCCACCATACAG AACACCACAAGCCCCTTATG	GTCTCTGCTTACCCTACACC CTTCCTGTA CTATTCTGCACCA	
Slc39a3	TGTCAGCTTCTCCTATGGCTTGT GGATCCCGCCTGCACTAATA	GAGGAGAATACATAAGAACAACCC TCTGCTCAGCAGCTTGAG	
Slc39a4	GGGCCGTGTGAAAAGTGTCT GGCTTGT CAGGTTTGCCTAGA	TCTTCAACCTCTTATTGCCCA CTCCTCTGT CACCAAGTCTG	
Slc39a5	CGAGCTGCCCCACGAA AAAGGATAACCCCTCCTGAAGCA	TAGACTCAGGTACAATCCTCAG GCAGTCAATGTCCCATTCTC	
Slc39a6	ACATTGGCCTGGATGGTGT AAGGCCGTCACTGAAATTGTG	AGTTTAACTATCTCTGTCCAGCC CTTGCATGAGAATGTGGGAG	
Slc39a7	GCTGGGTCCTGCCATTCA	GGATTGTGCTCCTTTCTTGTG	

	CAGCACAGACACTGTTGCTACGT	AAGGACACTCATGCCTATCC	
Slc39a8	GTACGCAGGAGACATCGAATTG TGCCTTCCCGCGTTGA	TGGCAGATATGTTTCCAGAG CAAGGTGATGAGCAAGATGG	
Slc39a9	GGACCAGGCTGGCTTCAAA CCAGCTCTAAGGAGGCAGAAAC	AGCAGCAGAAATATCAGTTGTC TGATTCTGGATCGTCAGTGG	
Slc39a10	GCCCTTCACCAGAGACCAATAA CCTCCTGACCTTCACTGACTTCA	CCAACATGAATGTTTGAACGTC AAGGAGAGCAGACTAATAACGG	
Slc39a11	CTCACCTGGGTGCTACAGAAGAC CAATGCAGGGTCCAAGTTCA	ATGCTTCAAGGTTACAGCTC ATCTAAGATCCGCCTCTGC	
Slc39a12	GGTTGTAAATTTGTCTGCATGAA TTGGGCTTGGGTTGTGTTG	TATTTCTTCAGAACCACAGCAG CGTGCTATAACCATATTTCTCCAG	
Slc39a13	AGGAATGTCAACTGGAAGAATGC GGTGTGAGCCAAGGCAAATAGT	CAAAGGAGTAGAGGAGACGG CATCTTCTCCAAGAGGTCAG	
Slc39a14	GAGTGGGCCGGGATAATGTT AAAGCACGTGGAGAGGTTTCCT		
Mt-1	CTGCACTTGCACCAGCTC GGAGCAGCAGCTCTTCTTG		CTCGAAATGGACCCCAACT ATATCTTCGAGCAGGGCTGT
Mt-2	AAGAAAAGCTGCTGCTCCTG CACTTGTGCGGAAGCCTCTTT		CCGACTCTAGCCGCCTCTT GTGGAAGTCGCGTTCTTTACA
Mt-3	CCCTGCCGGATGTGAGAA CCCCCTCTTCACCTTTGCA		
Ins1	GAAGCGTGGCATTGTGGAT TGGGCCTTAGTTGCAGTAGTTCT		
Gck	GCTTTTGAGACCCGTTTTGTG GCCTTCGGTCCCCAGAGT		
Slc2a1	CAGTTCGGCTATAAACTGGTG GCCCCGACAGAGAAGATG		
Slc2a2	CATGCTGAGCTCTGCTGAAG ACAGTCCAACGGATCCACTC		
Pfk	ATGGCAAAGCTATCGGTGTC ACACAGTCCCATTTGGCTTC		
Pdk1	GGACTTCGGGTGAGTGAATGC TCCTGAGAAGATTGTCGGGGA		
Ldha	TGTCTCCAGCAAAGACTACTGT GACTGTACTTGACAATGTTGGGA		
Slc16a3	GGCTGTTTTATCATCACGGGTT GTGTGCTGTAGCCAATCCC		

Vegfa	GTACCTCCATGCCAAGT ACTCCAGGGCTTCATCGTTA		
Pdx1	CATCCTATCCTCGGCCAATG CATTTCGGTTGCCCAGGAA		
Cyclophilin A	TATCTGCACTGCCAAGACTGTA CCACAATGCTCATGCCTTCTTCA		