

Supplement

Table S1: Top 20 list of mRNAs that have highest average evolutionary conservation in their mRNA 3'UTRs with length larger than 1,000 nucleotides.

Order	Gene-ID	Symbol	Name	3'-UTR length (nt)	chromosome
1	NM_024721	ZFHX4	zinc finger homeobox 4	2720	chr8
2	NM_006489	NOVA1	neuro-oncological ventral antigen 1	2076	chr14
3	NM_015384	NIPBL	Nipped-B homolog	1796	chr5
4	NM_005911	MAT2A	methionine adenosyltransferase II	1508	chr2
5	NM_014795	ZEB2	zinc finger E-box binding homeobox 2	1435	chr2
6	NM_001017371	SP3	Sp3 transcription factor	1411	chr2
7	NM_015646	RAP1B	RAP1B, member of RAS oncogene family	1315	chr12
8	NM_021140	KDM6A	lysine (K)-specific demethylase 6A	1189	chrX
9	NM_014515	CNOT2	CCR4-NOT transcription complex, subunit 2	1078	chr12
10	NM_001788	SEPT7	septin 7	1014	chr7
11	NM_001356	DDX3X	DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, X-linked	2552	chrX
12	NM_014612	FAM120A	family with sequence similarity 120A	1575	chr9
13	NM_004432	ELAVL2	ELAV (embryonic lethal, abnormal vision, Drosophila)-like 2 (Hu antigen B)	2452	chr9
14	NM_031371	ARID4B	AT rich interactive domain 4B (RBP1-like)	1630	chr1
15	NM_002398	MEIS1	Meis homeobox 1	1514	chr2
16	NM_172316	MEIS2	Meis homeobox 2	1429	chr15
17	NM_181054	HIF1A	Hypoxia inducible factor 1, α subunit	1320	chr14
18	NM_025133	FBXO11	F-box protein 11	1198	chr2
19	NM_005859	PURA	purine-rich element binding protein A	1586	chr5
20	NM_181892	UBE2D3	ubiquitin-conjugating enzyme E2D 3 (UBC4/5 homolog, yeast)	1485	chr4

Table S2: List of qPCR-primers used in this study.

Primer	Sequence
5' β 2 Macroglobulin (forward)	5'-tga ctt tgt cac agc cca aga ta
3' β 2 Macroglobulin (reverse)	5'-aaa tgc ggc atc ttc aaa cc
5' β -Actin (forward)	5'-ccg cga gca cag ctt ct
3' β -Actin (reverse)	5'-ggg tac ttc agg gtc agg at
5' HIF1- α (forward)	5'-cag ccg ctg gag aca caa tca tat
3' HIF1- α (reverse)	5'-ttc ttg att gag tgc agg gtc agc
5' Adrenomedullin (forward)	5'-gga tgc cgc ccg cat ccg ag
3' Adrenomedullin (reverse)	5'-gac acc aga gtc cga ccc gg
5' VEGF- β (forward)	5'-gcc agt gtg aat gca gac c
3' VEGF- β (reverse)	5'-gtg tca cct tcg cag ctt c
5' 18S rRNA (forward)	5'-gag gta gtg acg aaa aat aac aat
3' 18S rRNA (reverse)	5'-ttg ccc tcc aat gga tcc t