Plant mitochondrial RNA editing factors can perform targeted C-to-U editing of nuclear transcripts in human cells

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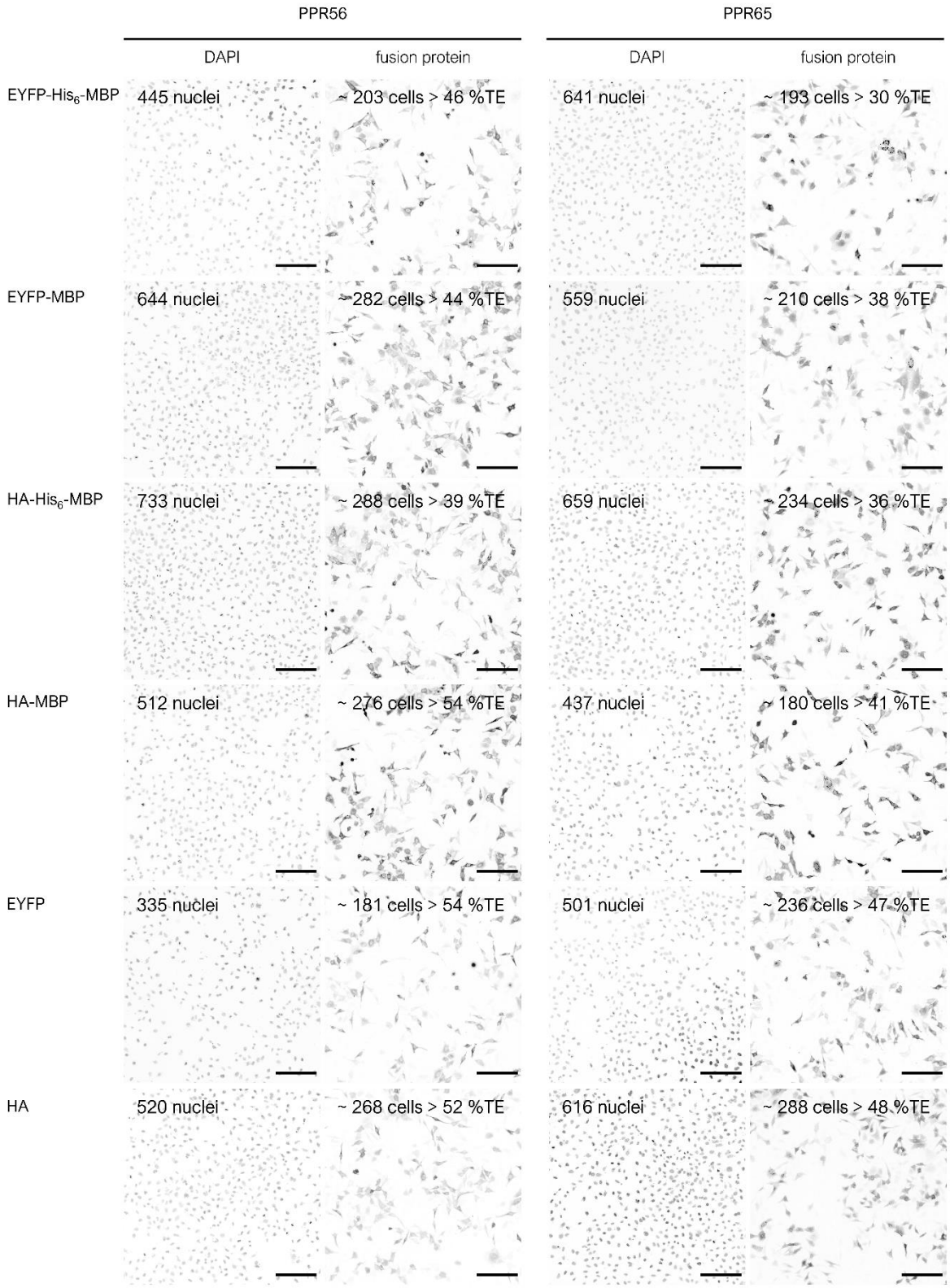
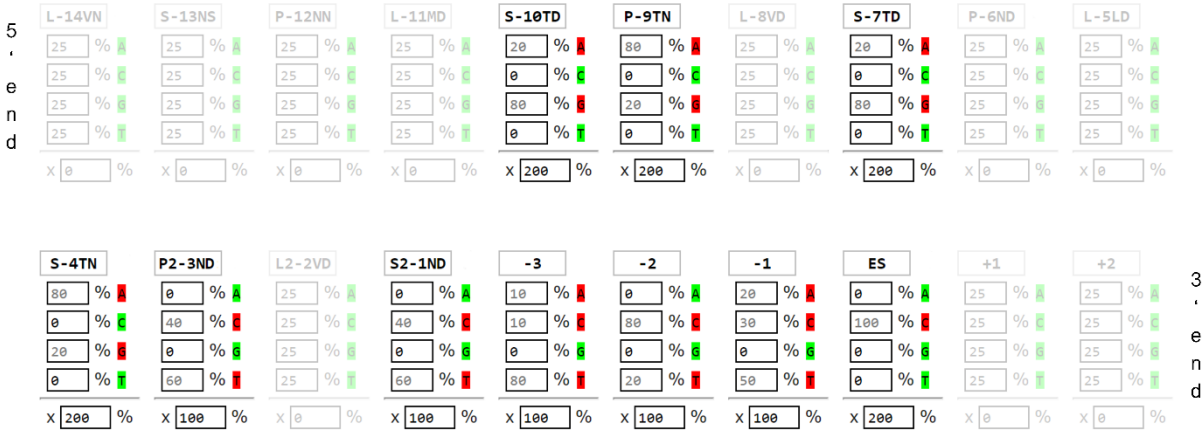
Supplementary Material


PPR56
PPR65
DAPI
fusion protein
DAPI
fusion protein
EYFP-His6-MBP
445 nuclei
~ 203 cells > 46 %TE
641 nuclei
~ 193 cells > 30 %TE
EYFP-MBP
644 nuclei
~ 282 cells > 44 %TE
559 nuclei
~ 210 cells > 38 %TE
HA-His6-MBP
733 nuclei
~ 288 cells > 39 %TE
659 nuclei
~ 234 cells > 36 %TE
HA-MBP
512 nuclei
~ 276 cells > 54 %TE
437 nuclei
~ 180 cells > 41 %TE
EYFP
335 nuclei
~ 181 cells > 54 %TE
501 nuclei
~ 236 cells > 47 %TE
HA
520 nuclei
~ 268 cells > 52 %TE
616 nuclei
~ 288 cells > 48 %TE

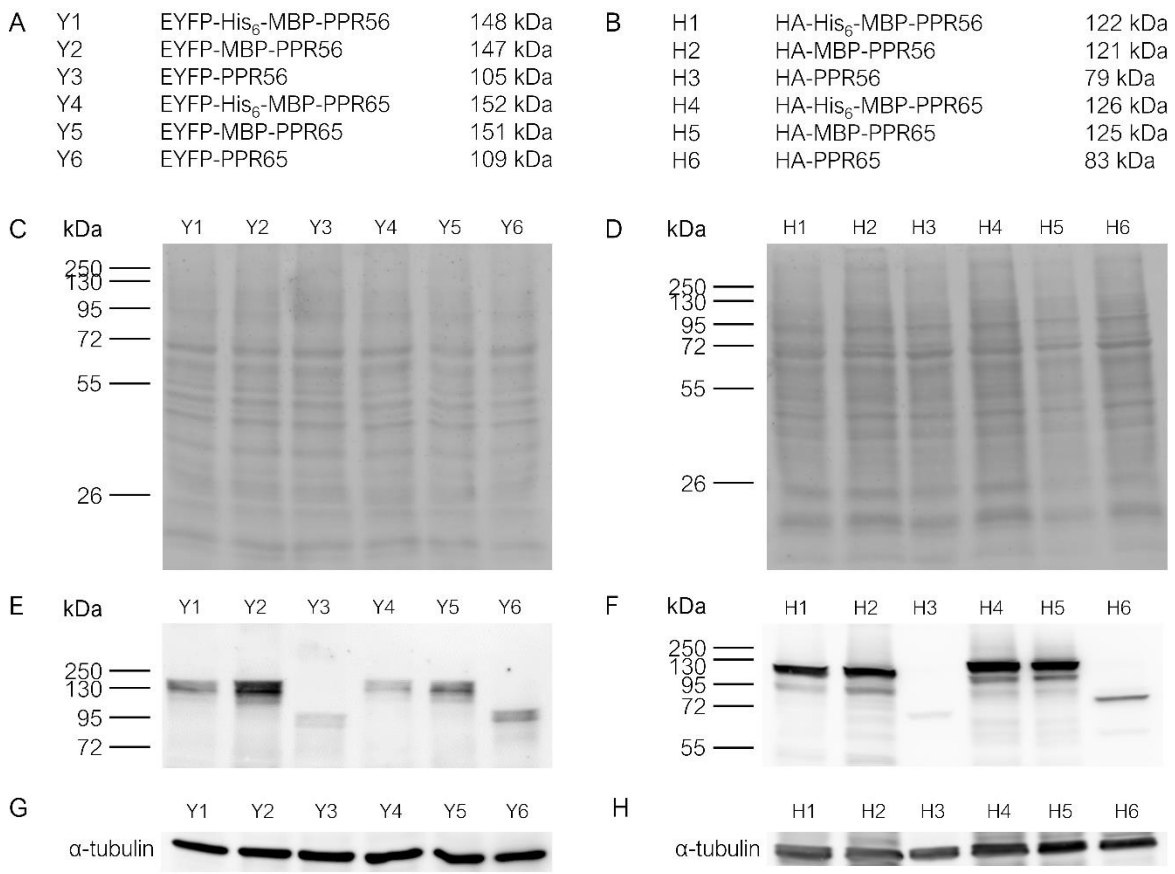
Supplementary Figure S1. Transfection rate calculation via HA and EYFP immunostained fusion proteins per DAPI stained nuclei.

After fixation and immunostaining of HeLa cells, expressing N-terminally tagged PPR56 or PPR65, 960.93x960.93 µm overview images were taken with a Nikon Eclipse Ti2 system equipped with a PlanFluor 40x Oil objective (NA 1.3) and 1.5x Zoom using the NIS-Elements AR software. In ImageJ/Fiji version 1.53c for Windows, the color channels were split. The DAPI image was transformed into a B&W binary and close nuclei were separated using the 'Watershed' and counted using the 'Analyze Particles' function with a size threshold of 1000 μm^2. Alexa594 fluorescence was displayed as inverted grayscale for counting fusion protein expressing cell. Transfection efficiencies (%TE) were defined as the number of fusion proteins expressing cells per total nuclei. Scale bars = 200 µm.



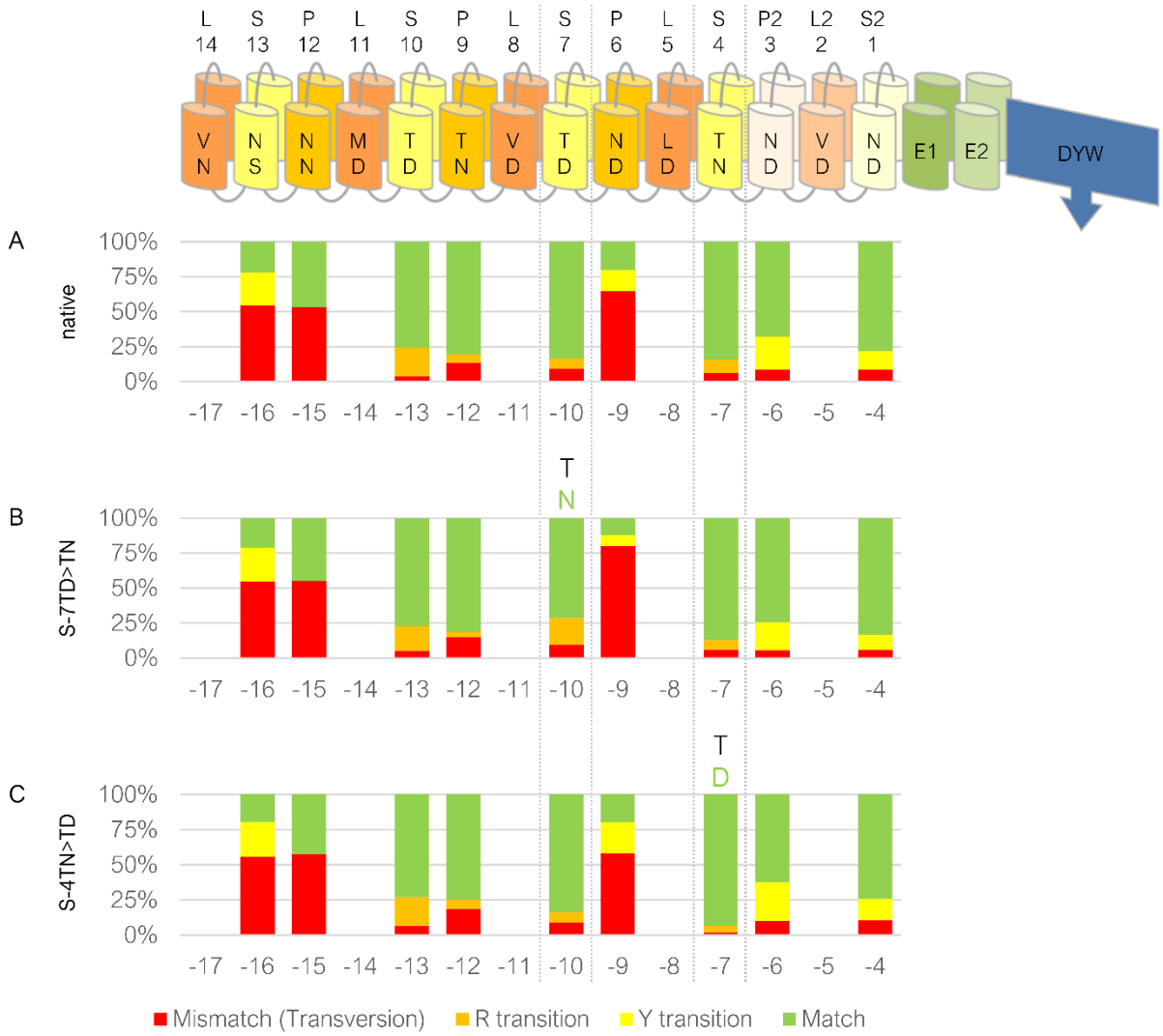
Supplementary Figure S2. Weight matrix used for scanning the custom IMR-90 transcriptome for putative PPR56 editing sites by the TargetScan tool of PREPACT (1).

Each column corresponds to one nucleotide position and is labelled either (i) with type, position counting from S2, and fifth and last amino acid of the corresponding PPR or (ii) with the position relative to the editing site (ES). Nucleotide distributions were set according to the published PPR-RNA binding code (2) and specific knowledge about PPR56 off-target sequence conservation (3). Positional weighs are shown below. Positions with no given weight (0%) and no influence on target selection are shaded in light grey.



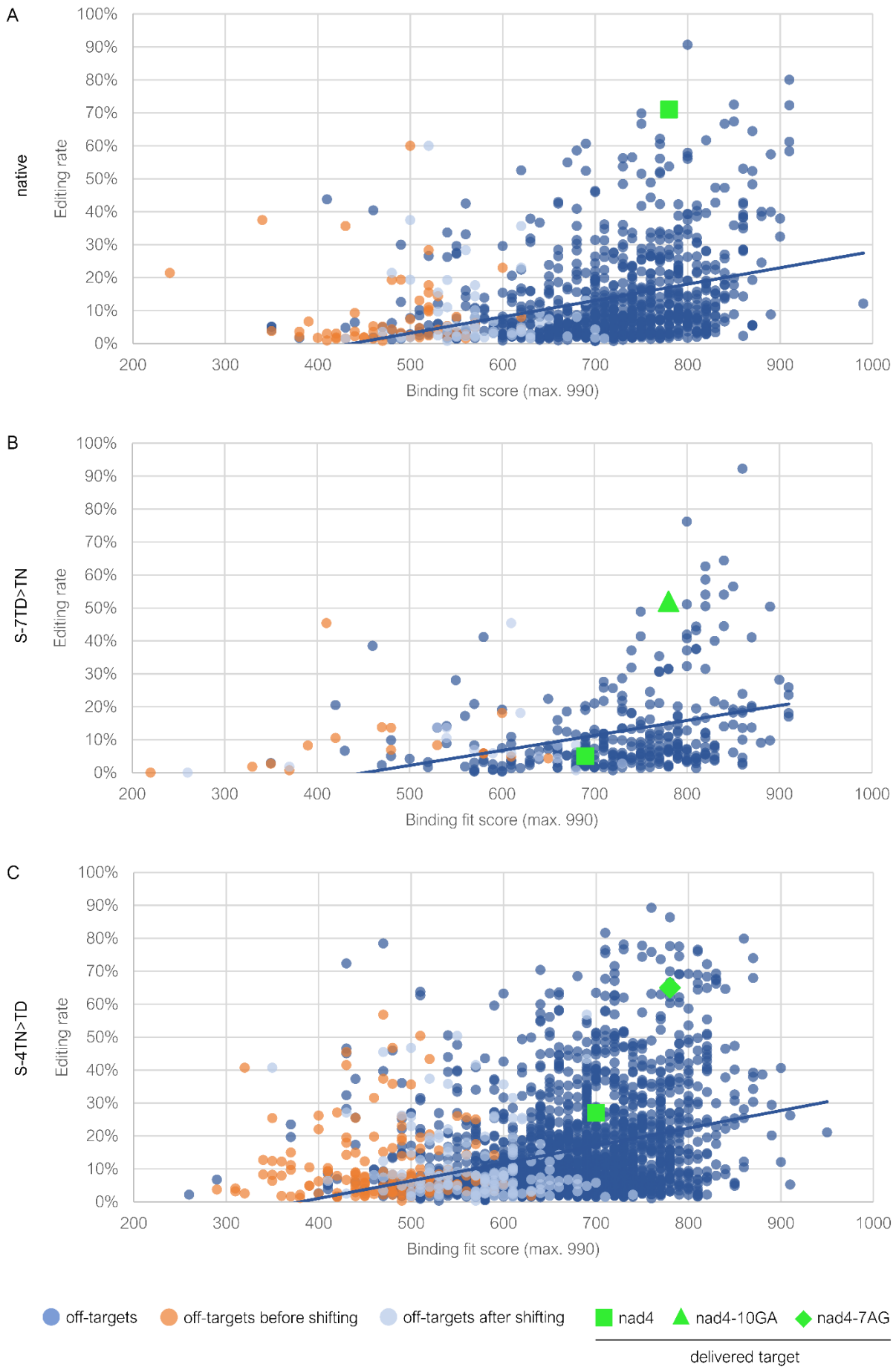
Supplementary Figure S3. Western Blot analyses of fusion protein expression in HeLa cells.

A, B: Investigated fusion proteins and corresponding molecular weights in kDa (calculated with BCCM Genecorner, https://www.genecorner.ugent.be/protein_mw.html). C, D: Total protein stained with Ponceau. E: Immunodetection of EYFP-tagged PPR proteins with α-GFP (mouse, Roth) and peroxidase labeled secondary antibody (Jackson ImmunoResearch). F: Immunodetection of HA-tagged PPR proteins with α-HA (rabbit, abcam ab9110) and peroxidase labeled secondary antibody (Jackson ImmunoResearch). G, H: Immunodetection of α-tubulin with α- α-tubulin (rabbit, Cell Signaling cat. #2125) and peroxidase labeled secondary antibody (Jackson ImmunoResearch) as loading control.



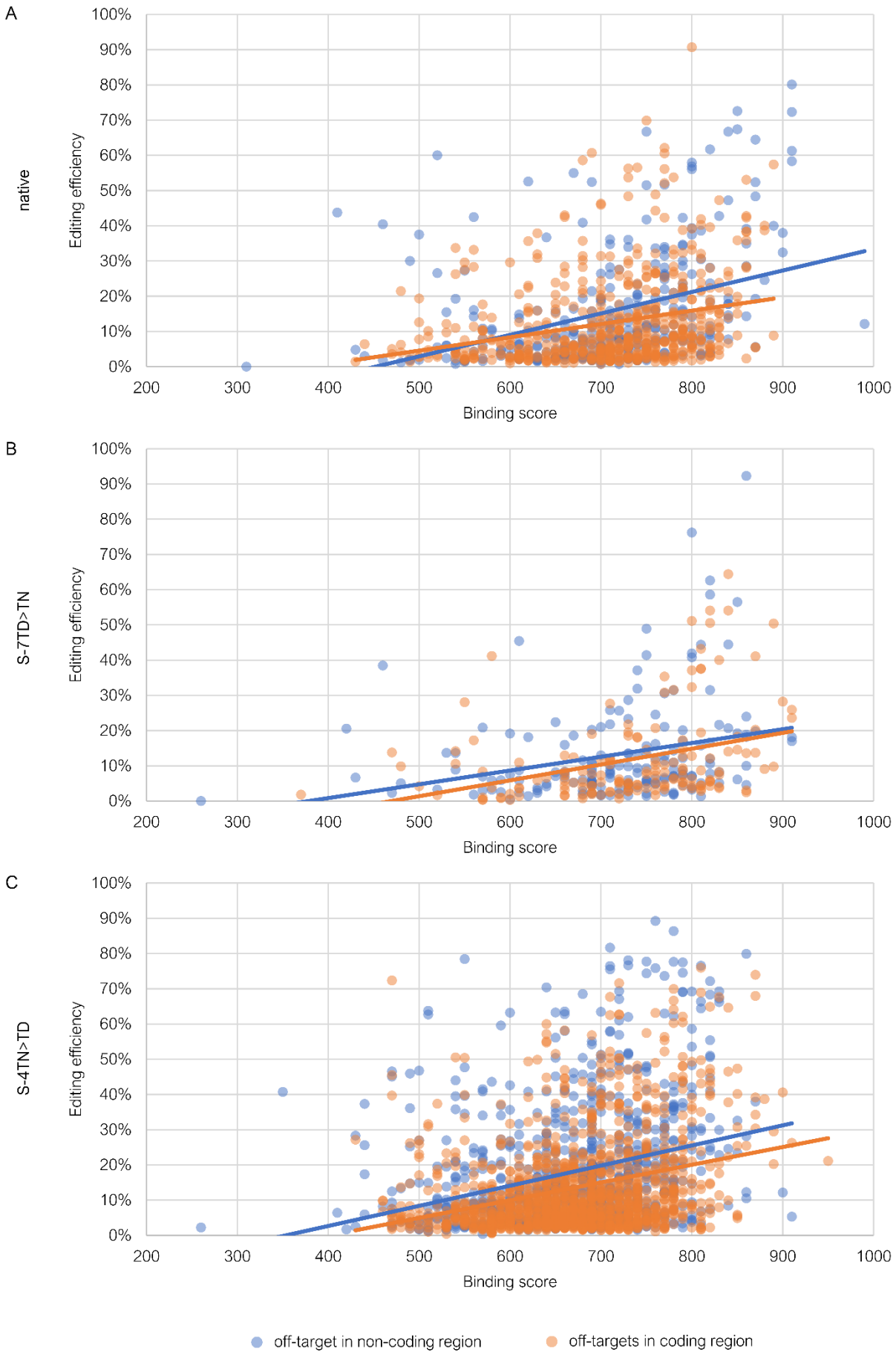
Supplementary Figure S4. Matches of individual PPRs and their corresponding nucleotides for the off-target data sets of PPR56 and the two investigated mutants S-4TN-TD and S-7TD-TN

The bar charts show the relative amounts of conceptual matches between PPRs and their target nucleotides (green), pyrimidine and purine transitions (yellow and orange, respectively) and transversion mismatches (red) at the respective positions observed for the off-targets determined for the native PPR56 protein (A) and the two investigated mutants (B and C).


A
native
Editing rate
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
200
300
400
500
600
700
800
900
1000
Binding fit score (max. 990)
B
S-7TD>TN
Editing rate
Binding fit score (max. 990)
C
S-4TN>TD
Editing rate
Binding fit score (max. 990)
off-targets
off-targets before shifting
off-targets after shifting
nad4
nad4-10GA
nad4-7AG
delivered target

Supplementary Figure S5. Scatter Plots correlating RNA editing efficiencies with the conceptual overall binding score at the off-targets for wild-type and the two mutant variants of PPR56.

Scatter plot of RNA editing efficiencies on the y-axis displayed in relation to conceptual matching scores (as described in figure 9) on the x-axis for the off-targets (dark blue dots) determined for the native PPR56 protein (A) and the two investigated mutants (B and C). Better matching scores are observed for ca. 5-6 % of off-targets (orange dots; 59 of 906 for PPR56, 16 of 323 for the S-7TN mutant and 147 of 2265 for the S-4TD mutant, respectively) after one- or two-nucleotide-shifts (light blue dots), away from the canonical juxtaposition of the terminal S2-type PPR with position -4 upstream of the editing sites. Editing at the co-delivered targets (green symbols) are added for reference.


A
native
Editing efficiency
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
200
300
400
500
600
700
800
900
1000
Binding score
B
S-7TD>TN
Editing efficiency
Binding score
C
S-4TN>TD
Editing efficiency
Binding score
off-target in non-coding region
off-targets in coding region

Supplementary Figure S6. Scatter Plots distinguishing off-targets occurring in coding vs. non-coding transcript regions.

Off-targets as analyzed in supplementary figure S5 (after nucleotide shifting for improved matching scores where applicable) classified by their occurrence in coding sequences (orange) or in non-coding regions (blue).

Supplementary Table S1

Oligonucleotides/ gBlocks used in this study.

#	Name	Purpose/ target	Sequence (5'-3')
P1	PPR56_P9_R	Cloning of PPR56 S motif mutant versions	GTTTGAATCCTTCCTGTTCC
P2	PPR56_P6_F	Cloning of PPR56 S motif mutant versions	GGCATGAAGCATATGATCTG
P3	PPR56_P6_R	Cloning of PPR56 S motif mutant versions	CAGATCATATGCTTCATGCC
P4	PPR56_P3_F	Cloning of PPR56 S motif mutant versions	GCTTGGCACAACATGGTC
P5	Gw_PPR56_-n_for	Cloning PPR into petG41K	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGAGAATCTTTATTTTCAGGGCGTGGTTCTGATGAACCGTC
P6	Gw_PPR56_-n_rev	Cloning PPR into petG41K	GGGGACCACTTTGTACAAGAAAGCTGGGTCTCACCAGTAATCACCACATG
P7	175641Ppfor	Cloning PPR into petG41K	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGAGAATCTTTATTTTCAGGGCTCTCACGATCAGATGCCAGGG
P8	175641Ppcomprev	Cloning PPR into petG41K	GGGGACCACTTTGTACAAGAAAGCTGGGTCTCACCAAAAATCCCCACAAGAACATAC
P9	EGFP_MBP_for_ScaI	Cloning PPR-target expression cassette	GCCAGTACTCCATGAAAATCGAAGAAGG
P10	EGFP_TEV_for_ScaI	Cloning PPR-target expression cassette	GCCAGTACTTAGAGAATCTTTATTTTCAGG
P11	EGFP_tT7_rev_ApaI	Cloning PPR-target expression cassette	ATGGGCCCTAGTTATTGCTCAGCGGTGG
P12	CMV_His_for_MscI	Cloning PPR-target expression cassette	ATTATATGGCCAAACATCACCATCACCATCACCCC
P13	CMV_MBP_for_MscI	Cloning PPR-target expression cassette	ATTATATGGCCACCATGAAAATCGAAGAAGG
P14	CMV_TEV_for_MscI	Cloning PPR-target expression cassette	ACTATATGGCCATAGAGAATCTTTATTTTCAGG
P15	CMV_tT7_rev_NotI	Cloning PPR-target expression cassette	ATTATAGCGGCCGCTAGTTATTGCTCAGCGGTGG
P16	pCMV-HA_seq_for	Cloning PPR-target expression cassette	CGGAATTGTACCCGCGGGCC
P17	pCMV-HA_seq_rev	Cloning PPR-target expression cassette	ATTCTAGTTGTGGTTTGTCC
P18	EGFP_His_for_ScaI_MOD	Cloning PPR-target expression cassette	GCCAGTACTTACATCACCATCACCATCACCCC
P19	PPR56_4-7ag_F	Cloning target	AAATATCAATTTTTATATAGgtatagacggtGtctcttcATTTTGG
P20	PPR56_4-7ag_R	Cloning target	CGCGCCAAAATGAAGAGACACCGTCTATACCTATATAAAAATTGATATTT
P21	PPR56_4-10ga_F	Cloning target	AAATATCAATTTTTATATAGgtatagacAgtatctcttcATTTTGG
P22	PPR56_4-10ga_R	Cloning target	CGCGCCAAAATGAAGAGATACTGTCTATACCTATATAAAAATTGATATTT
P23	PPR56_nad4_F	Cloning target	TCAAACATCAATTTTTATATAGgtatagacggtatctcttcATTTT
P24	PPR56_nad4_R	Cloning target	CGCGAAAATGAAGAGATACCGTCTATACCTATATAAAAATTGATGTTTGA
P25	HindIIIccmFC_for	Cloning target	agcttATACTATTTCAATGGTTGGTAAGTAGAGATGTTCCCACAtt
P26	Bsp119iccmFC_rev	Cloning target	CGAATGTGGGAACATCTCTACTTACCAACCATTGAAATAGTATA
P27	petG_30K40Kseqrev	Editing analysis/ Sequencing	GGTTATGCTAGTTATTGCTCAGC
P28	PPR56_CTDAH_R	PPR mutagenesis DYW domain	CTTAGTTGCTCCATGAGCATCGGTGCACACCCG
P29	PPR56_CTDAH_F	PPR mutagenesis DYW domain	CGGGTGTGCACCGATGCTCATGGAGCAACTAAG
P30	PPR65_HSARLAfor	PPR mutagenesis DYW domain	CTTTTCTCTCACAGTGCGAGGCTGGCGATCAC
P31	PPR65_HSARLArev	PPR mutagenesis DYW domain	GTGATCGCCAGCCTCGCACTGTGAGAGAAAAG
P32	PPR65_CGDAH_for	PPR mutagenesis DYW domain	CGAGTGTGTGGGGATGCTCATACGGCGACGAAG
P33	PPR65_CGDAH_rev	PPR mutagenesis DYW domain	CTTCGTCGCCGTATGAGCATCCCCACACACTCG
P34	PPR56_HSERLA_F	PPR mutagenesis DYW domain	CTCACAGTGAGaggTTGGCAATTGTG
P35	PPR56_HSERLA_R	PPR mutagenesis DYW domain	CACAATTGCCAACCTCTCACTGTGAG
P36	PPR56_S4TNTD_for	PPR mutagenesis S4 motif (gBlock IDT)	GTGGGCATGAAGCATATGATCTGTTTCTTCAGATGCAGACAGAGGGCTGTAAGCCAGATGCAATCATGTTTTTGAGCATCTTGAATGCATGTGCAAGTGC AGGGGCATTGGAGTGGGTGAAGAAGATTCACAGGCATGCCTTGGATTCAGGGCTTGAGGTTGATGTGCGTGTGGGCACTGCACTTGTTCACATGTACT CAAAGAGTGGTAGCATTGATGATGCGCGAGTGGTGTTTGACAGAATGAAGGTGCGCgATGTTGTATCATGGAATGCGATGATTTCTGGCTTGGCACAAC ATGGTCTTGGGCAGGACGCTTTG
P37	PPR56_S-7TDTN_for	PPR mutagenesis S7 motif (gBlock IDT)	TGGAACAGGAAGGATTCAAACCAAATGCAATCACTTATGTGAGCATCTTGAACGCATGTGCAAGTGAGGGGGCATTGAAGTGGGTGAAGAGGGTTCAC AGGCATGCCTTGGATGCAGGGCTTGAGTTGGATGTGCGTGTGGGCACTGCACTTGTTCAAATGTACGCAAAGAGTGGTAGCATTGATGATGCACGAGT GGTGTTTGACAGAATGAAGGTGCGTaATGTTGTATCATGGAATGTGATGATAGGCGCATTTGCAGAACATGGGCGTGGGCATGAAGCATATGATCTGTTT CTTC
P38	PPR56_int_for	PPR56 internal/ Sequencing	TTGAATGCATGTGCAAGTGC
P39	PPR65_intseq_rev	PPR65 internal/ Sequencing	CCAGACTTGCGTCATCCATGC
P40	175641KOfor	PPR65 internal/ Sequencing	ATGGAAATTGTTGAAGCTGGACTGG

P41	PPR65_PAbox_rev	PPR65 internal/ Sequencing	CTTCAATCCAGCTCTGCGCCGGCTCCTTGACAACATCC
P42	PPR65edit_f	PPR65 internal/ Sequencing	TATCTACGCTGCTGCTGGCC
P43	pEGFP-C3_seq_for	Sequencing	GATCACTCTCGGCATGGACG
P44	pEGFP-CR_seq_rev	Sequencing	CTCTACAAATGTGGTATGGC
P45	mbppetG40Kseqfor	Sequencing	GAT GTC CGC TTT CTG GTA TGC
P46	TEVrev	Sequencing	CCTGAAAATAAAGATTCTC
P47	EYFPfor	Sequencing	CACCTTGACCTACGGCGTGC

Supplementary Table S2

Results of all individual RNA editing experiments in the heterologous human cell and *E. coli* setups. The experimental conditions (type and number of cells seeded for transfection [human cells]/ of cells induced by addition of 0.4 mM isopropyl β-D-1-thiogalactopyranoside (IPTG) [*E. coli*], incubation time after transfection [human cells]/ after induction [*E. coli*], media and zinc supplementation) and C-U RNA editing rate of each individual replicate is listed.

#	Organism	Experiment	Cell line	Construct	Incubation	Cell number	Media	Zinc	Editing	Study
1	Human	Cell line	HEK-293	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	46%	This study
2	Human	Cell line	HEK-293	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	57%	This study
3	Human	Cell line	HEK-293	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	50%	This study
4	Human	Cell line	HEK-293	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	34%	This study
5	Human	Cell line	HEK-293	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	39%	This study
6	Human	Cell line	HEK-293	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	36%	This study
7	Human	Cell line	HEK-293	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	50%	This study
8	Human	Cell line	HEK-293	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	52%	This study
9	Human	Cell line	HEK-293	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	55%	This study
10	Human	Cell line	HEK-293	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	17%	This study
11	Human	Cell line	HEK-293	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	13%	This study
12	Human	Cell line	HEK-293	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	13%	This study
13	Human	Cell line	IMR-90	HA-His_6-MBP-PPR56+nad4_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	59%	This study
14	Human	Cell line	IMR-90	HA-His_6-MBP-PPR56+nad4_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	60%	This study
15	Human	Cell line	IMR-90	HA-His_6-MBP-PPR56+nad4_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	61%	This study
16	Human	Cell line	IMR-90	HA-His_6-MBP-PPR65+ccmFC_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	33%	This study
17	Human	Cell line	IMR-90	HA-His_6-MBP-PPR65+ccmFC_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	30%	This study
18	Human	Cell line	IMR-90	HA-His_6-MBP-PPR65+ccmFC_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	30%	This study
19	Human	Cell line	IMR-90	EYFP-PPR56+nad4_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	69%	This study
20	Human	Cell line	IMR-90	EYFP-PPR56+nad4_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	73%	This study
21	Human	Cell line	IMR-90	EYFP-PPR56+nad4_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	73%	This study
22	Human	Cell line	IMR-90	EYFP-PPR65+ccmFC_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	2%	This study
23	Human	Cell line	IMR-90	EYFP-PPR65+ccmFC_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	2%	This study
24	Human	Cell line	IMR-90	EYFP-PPR65+ccmFC_native	20h	$1.8x10^5$	MEM+FCS+Penstrep	25µM	0%	This study
25	Human	Cell line	MCF-7	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	64%	This study
26	Human	Cell line	MCF-7	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	71%	This study
27	Human	Cell line	MCF-7	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	74%	This study
28	Human	Cell line	MCF-7	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	61%	This study
29	Human	Cell line	MCF-7	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	63%	This study
30	Human	Cell line	MCF-7	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	63%	This study
31	Human	Cell line	MCF-7	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	37%	This study
32	Human	Cell line	MCF-7	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	47%	This study
33	Human	Cell line	MCF-7	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	44%	This study
34	Human	Cell line	MCF-7	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	25%	This study

35	Human	Cell line	MCF-7	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	26%	This study
36	Human	Cell line	MCF-7	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	26%	This study
37	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	55%	This study
38	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	67%	This study
39	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	56%	This study
40	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	52%	This study
41	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	65%	This study
42	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	60%	This study
43	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	52%	This study
44	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	56%	This study
45	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	52%	This study
46	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	63%	This study
47	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	62%	This study
48	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	47%	This study
49	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	55%	This study
50	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	57%	This study
51	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	41%	This study
52	Human	Cell line/ Construct	HeLa	HA-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	37%	This study
53	Human	Cell line/ Construct	HeLa	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	51%	This study
54	Human	Cell line/ Construct	HeLa	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	54%	This study
55	Human	Cell line/ Construct	HeLa	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	55%	This study
56	Human	Cell line/ Construct	HeLa	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	63%	This study
57	Human	Cell line/ Construct	HeLa	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	51%	This study
58	Human	Cell line/ Construct	HeLa	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	63%	This study
59	Human	Cell line/ Construct	HeLa	EYFP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	57%	This study
60	Human	Cell line/ Construct	HeLa	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	24%	This study
61	Human	Cell line/ Construct	HeLa	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	24%	This study
62	Human	Cell line/ Construct	HeLa	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	27%	This study
63	Human	Construct	HeLa	EYFP-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	42%	This study
64	Human	Construct	HeLa	EYFP-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	43%	This study
65	Human	Construct	HeLa	EYFP-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	38%	This study
66	Human	Construct	HeLa	EYFP-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	45%	This study
67	Human	Construct	HeLa	HA-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	60%	This study
68	Human	Construct	HeLa	HA-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	62%	This study
69	Human	Construct	HeLa	HA-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	49%	This study
70	Human	Construct	HeLa	HA-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	38%	This study
71	Human	Construct	HeLa	EYFP-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	28%	This study
72	Human	Construct	HeLa	EYFP-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	26%	This study
73	Human	Construct	HeLa	EYFP-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	27%	This study
74	Human	Construct	HeLa	EYFP-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	26%	This study
75	Human	Construct	HeLa	HA-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	52%	This study
76	Human	Construct	HeLa	HA-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	57%	This study

77	Human	Construct	HeLa	HA-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	32%	This study
78	Human	Construct	HeLa	HA-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	40%	This study
79	Human	Construct	HeLa	HA-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	62%	This study
80	Human	Construct	HeLa	HA-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	62%	This study
81	Human	Construct	HeLa	HA-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	38%	This study
82	Human	Construct	HeLa	HA-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	38%	This study
83	Human	Construct	HeLa	EYFP-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	27%	This study
84	Human	Construct	HeLa	EYFP-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	29%	This study
85	Human	Construct	HeLa	EYFP-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	22%	This study
86	Human	Construct	HeLa	EYFP-His_6-MBP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	19%	This study
87	Human	Construct	HeLa	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	5%	This study
88	Human	Construct	HeLa	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	29%	This study
89	Human	Construct	HeLa	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	28%	This study
90	Human	Construct	HeLa	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	18%	This study
91	Human	Construct	HeLa	EYFP-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	19%	This study
92	Human	Construct	HeLa	HA-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	1%	This study
93	Human	Construct	HeLa	HA-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
94	Human	Construct	HeLa	HA-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
95	Human	Construct	HeLa	HA-PPR65+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
96	Human	Construct	HeLa	EYFP-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	30%	This study
97	Human	Construct	HeLa	EYFP-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	42%	This study
98	Human	Construct	HeLa	EYFP-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	38%	This study
99	Human	Construct	HeLa	EYFP-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	37%	This study
100	Human	Construct	HeLa	EYFP-His_6-MBP-PPR56+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	33%	This study
101	Human	DYW domain mutants	HeLa	EYFP-PPR56_CxDAH+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
102	Human	DYW domain mutants	HeLa	EYFP-PPR56_CxDAH+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
103	Human	DYW domain mutants	HeLa	EYFP-PPR56_CxDAH+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
104	Human	DYW domain mutants	HeLa	EYFP-PPR56_HSERLA+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	20%	This study
105	Human	DYW domain mutants	HeLa	EYFP-PPR56_HSERLA+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	11%	This study
106	Human	DYW domain mutants	HeLa	EYFP-PPR56_HSERLA+nad4_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	22%	This study
107	Human	DYW domain mutants	HeLa	HA-His_6-MBP-PPR65_CxDAH+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
108	Human	DYW domain mutants	HeLa	HA-His_6-MBP-PPR65_CxDAH+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
109	Human	DYW domain mutants	HeLa	HA-His_6-MBP-PPR65_CxDAH+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
110	Human	DYW domain mutants	HeLa	HA-His_6-MBP-PPR65_HSARLA+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
111	Human	DYW domain mutants	HeLa	HA-His_6-MBP-PPR65_HSARLA+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
112	Human	DYW domain mutants	HeLa	HA-His_6-MBP-PPR65_HSARLA+ccmFC_native	20h	$2x10^5$	DMEM+FCS+Penstrep	25µM	0%	This study
113	Human	DYW domain mutants	IMR-90	EYFP-PPR56_CxDAH+nad4_native	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	0%	This study
114	Human	DYW domain mutants	IMR-90	EYFP-PPR56_CxDAH+nad4_native	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	0%	This study
115	Human	S motif mutants	IMR-90	EYFP-PPR56_S4mut+nad4_native	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	0%	This study
116	Human	S motif mutants	IMR-90	EYFP-PPR56_S4mut+nad4_native	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	0%	This study
117	Human	S motif mutants	IMR-90	EYFP-PPR56_S4mut+nad4_native	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	1%	This study
118	Human	S motif mutants	IMR-90	EYFP-PPR56_S7mut+nad4_native	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	0%	This study

119	Human	S motif mutants	IMR-90	EYFP-PPR56_S7mut+nad4_native	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	0%	This study
120	Human	S motif mutants	IMR-90	EYFP-PPR56_S7mut+nad4_native	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	0%	This study
121	Human	S motif mutants	IMR-90	EYFP-PPR56_S4mut+nad4_-7ag	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	70%	This study
122	Human	S motif mutants	IMR-90	EYFP-PPR56_S4mut+nad4_-7ag	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	67%	This study
123	Human	S motif mutants	IMR-90	EYFP-PPR56_S4mut+nad4_-7ag	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	58%	This study
124	Human	S motif mutants	IMR-90	EYFP-PPR56_S7mut+nad4_-10ga	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	31%	This study
125	Human	S motif mutants	IMR-90	EYFP-PPR56_S7mut+nad4_-10ga	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	29%	This study
126	Human	S motif mutants	IMR-90	EYFP-PPR56_S7mut+nad4_-10ga	20h	$2x10^5$	MEM+FCS+Penstrep	25µM	30%	This study
127	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	14h	$1x10^5$	DMEM+FCS+Penstrep	100µM	39%	This study
128	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	14h	$1x10^5$	DMEM+FCS+Penstrep	100µM	42%	This study
129	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	14h	$1x10^5$	DMEM+FCS+Penstrep	100µM	27%	This study
130	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	20h	$1x10^5$	DMEM+FCS+Penstrep	100µM	51%	This study
131	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	20h	$1x10^5$	DMEM+FCS+Penstrep	100µM	44%	This study
132	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	20h	$1x10^5$	DMEM+FCS+Penstrep	100µM	39%	This study
133	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	40h	$1x10^5$	DMEM+FCS+Penstrep	100µM	45%	This study
134	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	40h	$1x10^5$	DMEM+FCS+Penstrep	100µM	47%	This study
135	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	40h	$1x10^5$	DMEM+FCS+Penstrep	100µM	42%	This study
136	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	14h	$1x10^5$	DMEM+FCS+Penstrep	25µM	40%	This study
137	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	14h	$1x10^5$	DMEM+FCS+Penstrep	25µM	36%	This study
138	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	14h	$1x10^5$	DMEM+FCS+Penstrep	25µM	29%	This study
139	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	20h	$1x10^5$	DMEM+FCS+Penstrep	25µM	45%	This study
140	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	20h	$1x10^5$	DMEM+FCS+Penstrep	25µM	45%	This study
141	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	20h	$1x10^5$	DMEM+FCS+Penstrep	25µM	32%	This study
142	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	40h	$1x10^5$	DMEM+FCS+Penstrep	25µM	49%	This study
143	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	40h	$1x10^5$	DMEM+FCS+Penstrep	25µM	46%	This study
144	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	40h	$1x10^5$	DMEM+FCS+Penstrep	25µM	47%	This study
145	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	14h	$1x10^5$	DMEM+FCS+Penstrep	no	42%	This study
146	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	14h	$1x10^5$	DMEM+FCS+Penstrep	no	30%	This study
147	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	14h	$1x10^5$	DMEM+FCS+Penstrep	no	35%	This study
148	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	20h	$1x10^5$	DMEM+FCS+Penstrep	no	43%	This study
149	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	20h	$1x10^5$	DMEM+FCS+Penstrep	no	54%	This study
150	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	20h	$1x10^5$	DMEM+FCS+Penstrep	no	36%	This study
151	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	40h	$1x10^5$	DMEM+FCS+Penstrep	no	48%	This study
152	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	40h	$1x10^5$	DMEM+FCS+Penstrep	no	62%	This study
153	Human	Zinc/time	HeLa	EYFP-PPR56+nad4_native	40h	$1x10^5$	DMEM+FCS+Penstrep	no	50%	This study
154	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S4mut+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	98%	This study
155	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S4mut+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	98%	This study
156	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S4mut+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	81%	This study
157	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S7mut+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0%	This study
158	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S7mut+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0%	This study
159	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S7mut+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0%	This study
160	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S7mut+nad4_-10ga	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0%	This study

161	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S7mut+nad4_-10ga	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0%	This study
162	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S7mut+nad4_-10ga	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0%	This study
163	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S4mut+nad4_-7ag	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	100%	This study
164	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S4mut+nad4_-7ag	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	100%	This study
165	*Escherichia coli*	S motif mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_S4mut+nad4_-7ag	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	98%	This study
166	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_HSERLA+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	79%	This study
167	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_HSERLA+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	80%	This study
168	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_HSERLA+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	78%	This study
169	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_CxDAH+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0%	This study
170	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_CxDAH+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0%	This study
171	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56_CxDAH+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0%	This study
172	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR56+nad4_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	100±0%	(3)
173	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR65+ccmFC_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	96±4%	(3)
174	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR65_HSARLA+ccmFC_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0±0%	(3)
175	*Escherichia coli*	DYW domain mutants	Rosetta 2 (DE3)	His_6-MBP-PPR65_CxDAH+ccmFC_native	20h	$3.2x10^8$ to $4.6x10^8$	LB+KanCam	0.4mM	0±0%	(3)

Supplementary Table S3

Transfected human IMR-90 cell lines sent for RNA sequencing. The following information is included: cell line, RNASeq batch, expressed fusion protein, delivered target, replicate number of respective constructs, FACS sorting prior to RNA preparation, amounts of raw reads, reads left for mapping after quality trimming and numbers of removed plasmid matching reads (in brackets are percentages of mapped reads to EYFP-plasmid vs. HA-His_6-MBP-PPR65 plasmid for co-transfected cells), editing efficiencies of the respective delivered targets (%editing) and the fraction of off-targets, which are confirmed in the individual replicates. The corresponding SRA data is deposited within BioProject PRJNA832818.

Name	Cell line	RNASeq batch	Expressed protein	Delivered target	Replicate	FACS sorted	Raw reads	After quality trimming > % of raw reads	Matching plasmid > % of clean reads	Reads for mapping	%editing > delivered target	Off-targets confirmed
IMR1	IMR-90	2	EYFP-PPR56	nad4	1	Yes	99106154	87380226 (88.2%)	32.4%	59007884	71%	727/906 (80.2%)
IMR2	IMR-90	1	EYFP-PPR56	nad4	2	Yes	117428040	101532360 (86.5%)	27.2%	73903770	71%	839/906 (92.6%)
IMR3	IMR-90	1	EYFP-PPR56	nad4	3	Yes	110474636	95441720 (86.4%)	28.4%	68253350	70%	814/906 (89.8%)
ELIM1	IMR-90	2	EYFP-PPR56	nad4	4	No	115482810	103838880 (89.9%)	26.1%	76716486	72%	533/906 (58.8%)
IMR5	IMR-90	1	EYFP-PPR56-CxDAH	nad4	1	Yes	124316786	107041332 (86.1%)	27.0%	78065000	0%	/
I-1-2	IMR-90	3	EYFP-PPR56_S4TN>TD	nad4	1	Yes	128657316	115191558 (89.5%)	38.3%	70994072	27%	2063/2265 (91.1%)
I-3	IMR-90	3	EYFP-PPR56_S4TN>TD	nad4-7AG	2	Yes	112121016	100559526 (89.7%)	37.4%	62881814	65%	1987/2265 (87.7%)
I-4	IMR-90	3	EYFP-PPR56_S4TN>TD	nad4-7AG	3	Yes	122435238	108661546 (88.8%)	38.5%	66747124	64%	2028/2265 (89.5%)
I-6-2	IMR-90	3	EYFP-PPR56_S7TD>TN	nad4	1	Yes	126830966	113777666 (89.7%)	39.2%	69104234	5%	284/323 (87.9%)
I-7	IMR-90	3	EYFP-PPR56_S7TD>TN	nad4-10GA	2	Yes	104658340	93086300 (88.9%)	44.6%	51480558	53%	261/323 (80.8%)
I-8	IMR-90	3	EYFP-PPR56_S7TD>TN	nad4-10GA	3	Yes	133100572	118817108 (89.3%)	44.4%	65931130	50%	290/323 (89.8%)
I-9	IMR-90	3	EYFP + HA-His_6-MBP-PPR65 (co-transfection)	ccmFC	1	Yes	249859798	221774196 (88.8%)	30.1% (5.6%/ 24.5%)	154861296	19%	4/7 (57.1%)
I-10	IMR-90	3	EYFP + HA-His_6-MBP-PPR65 (co-transfection)	ccmFC	2	Yes	274709688	242595378 (88.3%)	30.5% (4.9%/ 25.6%)	168492352	20%	7/7 (100%)
I-12	IMR-90	3	EYFP + HA-His_6-MBP-PPR65 (co-transfection)	ccmFC	3	Yes	255509484	225227710 (88.2%)	30.6% (6.5%/ 24.1%)	156244988	20%	5/7 (71.4%)
IMR8	IMR-90	1	EYFP	none	Control PPR56	Yes	110753644	98081586 (88.6%)	19.4%	78948974	no PPR/ target	/
I-13	IMR-90	3	EYFP + HA-His_6-MBP (co-transfection)	none	Control PPR65	Yes	139760184	124347896 (89.0%)	25.0% (5.5%/ 19.5%)	93136262	no PPR/ target	/

Supplementary Table S4

PPR56_native, PPR56_S7TD>TN and PPR56_S4TN>TD off-targets detected in the IMR-90 transcriptome. Off-targets verified in at least two replicates of EYFP-PPR56_native (**A**, 56-N), EYFP-PPR56_S7TD>TN (**B**, 56-S7) and EYFP-PPR56_S4TN>TD (**C**, 56-S4) in the IMR-90 transcriptome. The off-target label reveals the gene ID, the transcript accession with the position of the edited C, the corresponding protein accession with the position of the affected amino acid and the induced amino acid change. Off-targets in non-coding transcripts are labeled with 'ncr' and for sites in 3' or 5' UTRs the distance to the respective CDS is displayed. For comparative reasons, the number of replicates in which the site was called (Rep.) and the mean C-U conversion rates (%CU) with standard deviations (STABW) of off-targets identified for PPR56_native (**A**), EYFP-PPR56_S7TD>TN (**B**) and EYFP-PPR56_S4TN>TD (**C**), respectively, are highlighted in bold and, in case of shared off-targets, presented together with the respective information of the other PPR56 versions. For PPR56_native, rates excluding (56-N-3) and including the unsorted sample (65-N-4) are depicted. Nucleotides from position -30 up- to +5 downstream of the editing sites are listed. Nucleotide shading indicates binding code matches to the corresponding PPR in green and transitions in yellow (see Figure 1). PPR-target match scoring was applied as explained in Figure 9. Alternative matching scores were calculated for PPR-RNA binding shifted one up to two positions up (+1/+2) or down (-1/-2). C-U conversion rates of individual replicates (labeled as in Supplementary table S3) are shown on the right. Sites detected in the same position of a gene, but in different transcript/ protein variants are colored in blue.

A) PPR56_native

>total: 906

Offtarget	Rep. 56-N	%CU 56-N-4	STABW 56-N-4	%CU 56-N-3	STABW 56-N-3	Rep. 56-S7	%CU 56 S7	STABW 56-S7	Rep. 56-S4	%CU 56-S4	STABW 56-S4	PPR56 native Scoring -2	-1	Match	+1	+2	Binding region	%editing in individual replicates PPR56-native %IMR1	%IMR2	%IMR3	%ELIM1	PPR56-S7mut %I6-2	%I7	%I8	PPR56-S4mut %I1-2	%I3	%I4
ABCB7-NM_001271696.3eU1398-NP_001258625.1aa463LF	4	39%	11%	44%	6%	1	4%		3	7%	3%	260	160	760	310	290	CAAATTAAAGACAAAGTGATGGCATCTCCCCTTCAG	48%	37%	48%	24%		4%		4%	9%	7%
ABCC1-NM_004996.4eU5943-3'UTR+1211	4	3%	0%	3%	0%	0			0			310	320	410	440	420	CTTTTCCTTGTTTTTAGATGTTAATTCTCCTTG	3%	3%	3%	2%						
ABHD2-NM_007011.8eU1421-NP_008942.3aa270SL	3	6%	4%	8%	4%	0			0			480	200	580	330	400	TGGCTGACAACATGAAGAAGATCATCCTCTCGCACA	5%	10%		3%						
ABHD3-NM_001308256.2eU996-NP_001295185.1aa296SL	4	8%	3%	9%	2%	0			3	67%	3%	410	130	700	290	410	TGTGTCTAAATTCTGTGGATGATGTTTTCTCACCCA	10%	7%	11%	4%				70%	64%	66%
ACAA2-NM_006111.3eU1436-3'UTR+193	4	8%	4%	10%	1%	0			0			340	220	580	400	500	ATAGGAGCCCATGCTAGAAGTACATTCTCTCAGATT	11%	10%	9%	3%						
ACOT8-NM_005469.4eU203-NP_005460.2aa42FF	4	3%	1%	3%	2%	0			0			610	270	490	420	230	CAACCTCGAGCCGCTGGACGAGGATCTCTTCAGAGG	3%	5%	2%	2%						
ACTR1A-NM_005736.4eU1238-3'UTR+42	4	3%	1%	3%	1%	0			0			260	160	660	210	210	CATCTTCACCTCTCTCTGAAGTTAACTCCACTTTAA	4%	2%	3%	2%						
ACTR2-NM_001005386.3eU312-NP_001005386.1aa78PL	3	5%	1%	5%	1%	0			0			210	280	700	240	240	AATTACGATCAATGTTAGAAGTTAACTACCCTATGG	5%	5%	6%							
ACTR2-NM_005722.4eU297-NP_005713.1aa73PL	4	4%	2%	5%	0%	0			0			210	280	700	240	240	AATTACGATCAATGTTAGAAGTTAACTACCCTATGG	5%	5%	5%	1%						
ADAR-NM_001025107.3eU2198-NP_001020278.1aa404SL	4	3%	2%	4%	0%	0			0			220	240	790	80	270	CTTCTGATAACCAGCCTGAAGGTATGATCTCAGAGT	5%	4%	4%	1%						
ADAR-NM_001025107.3eU4034-3'UTR+251	4	36%	13%	42%	2%	2	2%	0%	3	2%	0%	340	210	790	220	250	AAGAGGCAGAAACCTAAGAAGTTATCTTTTCTTTCT	45%	41%	40%	16%	1%		2%	3%	2%	2%
AFDN-NM_001040000.3eU3958-NP_001035089.1aa1246Q*	2	4%	1%	4%	1%	0			0			370	90	710	400	100	TCCAAATCCCAGGATCGGATGGCTCCTCCTCAGAAC	4%	4%								
AGFG1-NM_001135189.2eU1671-NP_001128661.1aa469Q*	4	5%	2%	6%	1%	3	51%	7%	2	4%	1%	310	310	730	230	390	GCAGCTTTCCCTCAACAGACAGCTTTTCTCAACAG	7%	6%	4%	3%	51%	57%	43%	4%		3%
AGFG2-NM_006076.5eU585-NP_006067.3aa147PP	3	9%	6%	9%	6%	0			0			370	260	710	310	430	AAAATATGAGAAGAAGAGATGGTATGTCCCCCCAGA	15%	10%	3%							
AGGF1-NM_018046.5eU2385-NP_060516.2aa674LL	3	5%	1%	5%	1%	0			0			360	260	510	400	260	ACCATCCTCATTTGAAGATGTTCACCTTCTCCAAAA	4%	5%	4%							
AGPAT5-NM_018361.5eU2324-3'UTR+1202	4	34%	7%	37%	4%	0			1	8%		350	160	640	440	260	CATTTGTCTGTGTCAAGAAGTTCACCTTCTCAAGCC	33%	36%	41%	25%					8%	
AGPS-NM_003659.4eU966-NP_003650.1aa317RC	3	2%	0%	2%	0%	0			0			370	130	600	350	430	TTCAGTACTGTAGGAGGATGGGTATCTACTCGCGCA		2%	3%	2%						
AHI1-NM_001134830.2eU374-NP_001128302.1aa54HH	4	19%	10%	22%	9%	0			0			210	200	820	260	340	CTCACCTGACACTATTAGAAGCAATCTTCACTATAT	23%	31%	13%	9%						
AHI1-NM_001134830.2eU428-NP_001128302.1aa72PP	4	35%	16%	40%	17%	0			2	6%	1%	170	370	820	360	290	TGATCCCGACACTATTAGAAGCAATCTTCCCCATAT	38%	57%	24%	23%				6%		7%
AHSA1-NM_001321441.2eU1234-3'UTR+181	4	30%	10%	34%	3%	0			0			350	300	790	300	320	TCTGCTGGGTGGGTTCAGAGGGCAATTTCTCTTTTA	37%	34%	32%	15%						
AHSA1-NM_001321441.2eU809-NP_001308370.1aa123SF	4	6%	2%	7%	1%	0			0			210	240	770	80	220	GAAAGTTCCACATGGTAGATGGCAACGTCTCTGGGG	8%	6%	7%	4%						
AIDA-NM_022831.4eU2690-3'UTR+1595	4	14%	5%	16%	3%	2	2%	0%	0			270	440	560	420	520	GCTCTTCAAGGAGCAAGAGGCGCATTTTCTCCGTGT	19%	13%	16%	7%	2%		2%			
AJUBA-NM_032876.6eU2234-3'UTR+332	4	6%	3%	6%	4%	0			0			310	200	740	310	270	ATTTTGTTTGTTTTAGAGATGGGATCTCACCATGTT	4%	11%	5%	4%						
AK4-NM_001005353.3eU1502-3'UTR+495	4	16%	5%	18%	3%	0			0			320	140	700	300	260	CTGGTAACAGTGAAATTGAAGCTACTTACTCATAGT	15%	20%	20%	10%						
AKAP12-NM_005100.4eU586-NP_005091.2aa105TI	4	9%	3%	10%	1%	0			0			160	210	790	190	400	ACAGCCAGGAGGAAGAAGAAGTCATTGTCACAGAGG	10%	10%	11%	4%						
AKAP13-NM_001270546.1eU8455-3'UTR+4008	3	7%	1%	7%	1%	0			0			240	460	760	400	190	GGGGAGGAAGGGAAAATAAAGGCATCTTTCCAAGTA	9%	6%	7%							
ALDH18A1-NM_001017423.2eU2239-NP_001017423.1aa699TI	2	3%	1%	3%		0			0			160	70	760	160	300	ATGGCAGCTCCCACACGGATGTCATCGTCACAGAGG		3%		2%						
ALS2-NM_001135745.2eU109-5'UTR-10	3	7%	2%	8%	2%	0			3	22%	3%	310	230	700	320	290	AGAAGGAATGATTTGGTGATGGAGTGTTCCCACTGA	10%	7%		5%				20%	20%	25%
ANAPC13-NM_001242374.1eU989-3'UTR+33	4	9%	2%	10%	2%	0			0			330	470	690	130	440	CTTGGCTCCTTTCTTGTGGATGGATTTTCTCAAAGT	11%	11%	8%	6%						
ANKRD11-NM_001256182.2eU6183-NP_001243111.1aa1884SL	4	5%	1%	6%	1%	0			3	21%	4%	350	210	870	230	330	CTGTCACCCCGTCTCCAGAGGGCGTCTTCTCAAGTT	6%	5%	5%	4%				17%	23%	24%
ANKRD33B-NM_001164440.2eU6171-3'UTR+4288	3	6%	2%	6%	2%	3	19%	6%	0			230	280	690	310	240	TAGTGAATTTCAAGTTGACAGGTACCTTCTCAGGGA	7%	8%	4%		26%	17%	14%			
ANTXR2-NM_001286780.2eU1438-3'UTR+45	3	47%	10%	52%	8%	0			0			570	220	770	270	120	GACCAAGAAGGTACGAAGATGGCACATTTTCACATA	57%		46%	36%						
AOPEP-XM_017015231.2eU6068-3'UTR+3687	2	40%	5%	44%		0			0			110	40	410	40	390	ACGGCGAGGTGAGCTGAGGACTTTCTGAGAACAGTTA			44%	36%						
AP1G1-NM_001030007.2eU381-NP_001025178.1aa102LL	4	19%	7%	22%	3%	0			1	5%		270	110	620	390	330	GTTAGATGAAAGACAAGATGTCCATCTTCTATGAC	20%	25%	22%	9%					5%	
AP2B1-NM_001030006.2eU2707-NP_001025177.1aa859PP	3	2%	0%	2%	0%	0			0			380	520	650	200	300	GGTCTTCCTTGCAACATGGAAGGATATTCCCAATGA		1%	2%	1%						
AP3D1-NM_001261826.3eU2737-NP_001248755.1aa835PP	3	3%	0%	4%	0%	0			0			340	510	510	370	270	GACCTCAAAATCCCCTGAGAAGGACGTTCCCATGGT		4%	3%	3%						
AP3D1-NM_001374799.1eU2737-NP_001361728.1aa835PP	3	9%	1%	9%	1%	0			0			340	510	510	370	270	GACCTCAAAATCCCCTGAGAAGGACGTTCCCATGGT	10%	8%	8%							
AP4E1-NM_001252127.2eU2270-NP_001239056.1aa642PP	4	18%	7%	20%	6%	0			2	15%	6%	250	230	710	570	390	GAAATTGTGGGGGAAAGAAGGCTATCTTCCCAAGAA	14%	20%	26%	12%					11%	19%
APBB1IP-NM_019043.4eU2436-3'UTR+118	3	15%	4%	15%	4%	0			0			370	280	650	430	220	ATTTCAGATAAAATGTGATGGGAAACTTCTCACTGA	14%	20%	13%							
APBB1IP-NM_019043.4eU2547-3'UTR+229	3	15%	9%	15%	9%	3	29%	5%	0			210	310	730	280	310	GTATTTTAACCTAAGATGGAATGTATCTTCCCTTCCA	15%	25%	6%		34%	25%	27%			
APMAP-NM_020531.3eU1568-3'UTR+254	3	2%	0%	2%	0%	0			0			320	250	730	330	390	GGAACATAAATTCATGTAAAGCCATTTTCTCTTAAA	2%	2%	2%							
ARFGAP2-NM_001242832.2eU1123-NP_001229761.1aa366SL	2	2%	0%	2%	0%	0			0			300	240	780	130	220	TAGAGGAGAAGGAGCCAGAAGTGACCATCTCAAGCA	2%		2%							
ARFIP1-NM_001025593.3eU763-NP_001020764.1aa161Q*	3	13%	1%	13%	1%	0			0			340	210	700	290	240	TCGACCCAGCTTTTCCAGATGGTACATACCCAAAGG	13%	13%	14%							
ARHGAP11A-NM_001286479.3eU1814-NP_001273408.1aa422HH	4	13%	5%	15%	2%	0			0			320	150	780	300	260	AGCGTTTTCTGAATCTGGAAGTAATCTTCACGCATT	16%	17%	14%	6%						
ARHGAP11A-NM_001286479.3eU2227-NP_001273408.1aa560PL	2	3%	1%	3%	1%	0			0			220	440	690	320	140	AGAATGAGAATATGATGGAAGGTAACTTACCGAAGT		4%	3%							
ARHGAP29-NM_001328664.2eU417-NP_001315593.1aa68SL	4	41%	12%	47%	2%	0			3	4%	1%	430	210	830	260	230	TGTTACTATATTTGAAAGAAGCCATATTTTCAGACT	45%	49%	48%	24%				3%	4%	5%
ARHGEF17-NM_014786.4eU6974-3'UTR+419	4	23%	8%	27%	2%	0			1	7%		250	320	520	500	280	TTTATGTTTCTTTTTAGATGTGTACCTTCCCAAGCA	28%	24%	28%	12%					7%	
ARL1-NM_001177.6eU1226-3'UTR+553	2	6%	2%	6%	2%	0			1	5%		300	190	520	350	330	GCATGAATATTGTTTTGATGGTTAACTTCACTGACT		4%	7%							5%
ARMCX6-NM_001009584.2eU1201-3'UTR+36	4	10%	4%	12%	3%	0			0			260	210	700	340	320	CCTCTCGAACACAATGGGACGGAATCCACCCACAAC	13%	9%	14%	5%						
ARMCX6-NR_033669.2eU372-ncr	3	11%	0%	11%	0%	0			0			260	210	700	340	320	CCTCTCGAACACAATGGGACGGAATCCACCCACAAC	12%	11%	11%							

ARNT-NM_001197325.2eU1108-NP_001184254.1aa359TI	3	9%	4%	9%	6%	0			0			290	160	780	230	400	T C T C C C G A C A C A A C A T T G A G G G T A T C T T C A C T T T T G		13%	5%	10%		
ASAH2B-NM_001079516.4eU550-NP_001072984.1aa158PL	4	49%	28%	61%	17%	0			1	7%		260	300	690	430	160	C T G T C A T A C T T T C A T T T G A A G G C A C T T C C C C G G C T T	72%	70%	41%	13%		7%
ASB16-NM_080863.5eU1914-3'UTR+466	2	22%	11%	30%		0			3	25%	4%	220	110	490	200	200	G G C T T C T T G A G A C A C C T G C T G A C C T C T A G C C G G A C C			30%	14%		23% 29% 23%
ASCC3-NM_006828.4eU6781-NP_006819.2aa2157YY	4	5%	1%	4%	1%	0			0			520	230	690	330	180	T A C C C C T G A A A T A C C T G G A A G G T A T A T C T A C A C A T T	5%	3%	5%	6%		
ASH1L-NM_001366177.2eU4968-NP_001353106.1aa1406PP	3	18%	4%	19%	4%	0			0			210	360	800	260	380	A G G A T T A G G T T A C T A T G G A A G G T A T C C T C C C A C T C T		22%	16%	14%		
ASXL2-NM_001369346.1eU3253-NP_001356275.1aa1044TI	2	8%	4%	8%	4%	0			0			260	130	810	290	300	A C T C A G G T T T C C A G C T G G A A G A C A T C T C C A C A A G C C		5%	10%			
ATG101-NM_001098673.2eU437-NP_001092143.1aa46SF	2	2%	1%	2%	1%	0			0			350	240	740	400	180	A G T T C C A C T A C A A G A A G G A G G G C A C C T A C T C C A T T G	1%	2%				
ATG14-NM_014924.5eU986-NP_055739.2aa326PP	4	28%	14%	34%	11%	0			2	7%	1%	300	230	540	490	370	T C T G T C T C A T A T A C T T G A T G T A A A T C T T C C C A A A A A	45%	24%	32%	12%		7% 6%
ATIC-NM_004044.7eU625-NP_004035.2aa181HY	3	2%	1%	2%	1%	0			0			220	280	770	150	300	A G A C G C C A G T T A G C C T T G A A G G C A T T C A C T C A T A C G	2%	2%	3%			
ATP13A3-NM_001367549.1eU1382-NP_001354478.1aa286SF	3	8%	4%	10%	3%	0			0			380	260	790	260	310	G A G T A A A T G A A G A A A T A G A A G A A A T C T T T T C T A C C G		13%	8%	4%		
ATP5F1A-NM_001001935.3eU1572-NP_001001935.1aa428PP	4	2%	1%	2%	1%	3	28%	3%	0			190	380	620	330	440	T G A G T T G C T G A A G C A A G G A C A G T A T T C T C C C A T G G C	2%	2%	1%	1%	24% 30% 29%	
ATP5PO-NM_001697.3eU505-NP_001688.1aa155SF	4	8%	4%	10%	1%	0			0			380	200	720	210	290	C T G C A T C T C C T T T A G A A G A A G C C A C A C T C T C T G A A T	11%	10%	10%	2%		
ATP6V1D-NM_015994.4eU309-NP_057078.1aa68SL	4	8%	3%	9%	1%	0			3	70%	1%	480	210	700	270	300	T G G G C G A A G T G A T G A G A G A A G C T G C C T T T T C A C T A G	10%	9%	8%	3%		70% 71% 69%
ATPSCKMT-NM_199133.4eU470-NP_954584.2aa152SL	3	10%	0%	10%	0%	0			0			570	230	520	550	320	A T A T T T C A G A T T T G T G G A A G G T T A C T T T T T C G C A G T	10%		10%	10%		
ATRX-NM_000489.6eU10170-3'UTR+2476	3	10%	4%	10%	4%	0			0			390	220	620	410	180	T T A A G T A C T G T A G A A A A G A T G T C A C T T C T T C C T T T A	6%	15%	10%			
ATXN3-NM_001127696.2eU1694-3'UTR+623	3	27%	11%	27%	11%	0			1	9%		430	170	550	510	230	C A C A A T T C T T T T G A A A G A T G G T A A T C T T T T C T G A G G	22%	40%	20%			9%
AVL9-NM_015060.3eU666-NP_055875.1aa149Q*	4	23%	9%	27%	3%	0			3	19%	2%	220	420	780	450	470	C A T G C A T A T T T T G A A G A G A A G G A T T T T T C C C A A A T T	30%	28%	23%	10%		20% 16% 20%
B3GALT9-NM_001386823.1eU841-NP_001373752.1aa68SS	3	28%	9%	32%	8%	0			0			340	260	740	470	150	G A A C A T C G A A C C C C T A A G A A G T A A T C T C T C C A A A T A		26%	38%	19%		
BAD-NM_004322.3eU727-NP_004313.1aa131RC	4	5%	2%	6%	1%	0			0			510	270	730	370	240	T T T G T G G A C T C C T T T A A G A A G G G A C T T C C T C G C C C G	7%	7%	5%	2%		
BANF1-NM_001143985.1eU464-NP_001137457.1aa5Q*	4	12%	5%	14%	2%	0			1	2%		200	320	740	220	370	A G A T T A A G C C T G A T C A A G A T G A C A A C C T C C C A A A A G	15%	16%	12%	4%		2%
BANF1-NM_003860.4eU97-NP_003851.1aa5Q*	4	12%	5%	14%	1%	0			1	1%		200	320	740	220	370	G G A T T A A G C C T G A T C A A G A T G A C A A C C T C C C A A A A G	16%	13%	14%	5%		1%
BANF1-XM_017018514.1eU514-XP_016874003.1aa5Q*	3	15%	5%	15%	5%	0			0			200	320	740	220	370	T A A T T A A G C C T G A T C A A G A T G A C A A C C T C C C A A A A G	19%	16%	10%			
BAX-NM_001291429.2eU1107-3'UTR+448	2	2%	0%	2%	0%	0			0			220	350	710	200	330	G A T G T C C C T G T C T C C A G G A C G G C C T C C T C T C C T A C T		2%	2%			
BBX-NM_001142568.3eU2664-NP_001136040.1aa788SL	4	15%	8%	16%	9%	0			0			430	210	830	220	230	A T G C C A T T C A C C C T A C A G A A G C C A T A T T T T C A G A A G	27%	12%	9%	11%		
BBX-NM_020235.7eU2574-NP_064620.2aa758SL	4	14%	7%	15%	8%	0			0			430	210	830	220	230	A T G C C A T T C A C C C T A C A G A A G C C A T A T T T T C A G A A G	24%	9%	13%	11%		
BCAR1-NM_001170714.3eU868-NP_001164185.1aa195SL	3	3%	1%	3%	1%	3	28%	8%	0			280	240	550	350	180	C T C C C C C A G C C A A G C A G A C A T C C A C C T T C T C G A A G C	2%	4%	3%		25% 37% 22%	
BCAS2-NM_005872.3eU792-3'UTR+90	4	5%	2%	6%	1%	3	17%	4%	0			300	360	700	320	250	A A T G A A C T T T G A A G G A C A A C A G C A T C T T C C C A A A A C	5%	7%	5%	2%	13% 18% 20%	
BCL2L12-NM_001040668.1eU1096-NP_001035758.1aa138PP	4	4%	1%	4%	2%	0			3	60%	5%	290	220	700	240	350	C T T C C T G A G C C G C C T T C G A A G A T G T C T T C C C T G C T C	6%	3%	4%	3%		66% 58% 56%
BCL2L12-NM_001282516.1eU1099-NP_001269445.1aa139PP	3	5%	1%	5%	1%	0			3	64%	3%	290	220	700	240	350	C T T C C T G A G C C G C C T T C G A A G A T G T C T T C C C T G C T C	5%	4%	4%			67% 64% 61%
BCOR-NM_001123385.2eU792-NP_001116857.1aa3SL	3	26%	15%	26%	15%	0			0			210	120	790	120	440	A A G C T G C C A T C C C A G A A G A C G A C A T G C T C T C A G C A A	43%	15%	19%			
BIRC2-NM_001166.5eU1932-NP_001157.1aa171SL	4	5%	1%	6%	1%	0			0			390	140	780	250	150	T T A A T T C T A G A G C A G T T G A A G A C A T C T C T T C A T C G A	5%	6%	5%	4%		
BLMH-NM_000386.4eU1294-NP_000377.1aa390TI	4	10%	4%	12%	2%	0			3	63%	1%	300	270	640	380	310	C A G A G A A G G A T G A T C A G G A T G G T G C T T T C A C A A A A T	14%	9%	12%	5%		62% 62% 64%
BMP1-NM_006129.5eU3253-3'UTR+258	4	3%	1%	3%	1%	0			0			320	280	680	220	110	C T T C C A C A A G A C A T T T C G A A G T C A T C A T T C C T C T C T	4%	5%	2%	3%		
BNIP3-NM_004052.4eU1380-3'UTR+678	4	38%	10%	43%	5%	0			3	7%	3%	270	170	830	190	100	A T G A T C A G T T T T C T G C T G A A G G C A C C T A C T C A G T A T	48%	38%	42%	26%		4% 6% 10%
BOK-NM_032515.5eU2362-3'UTR+1445	2	2%	0%	2%	0%	0			0			240	450	630	320	240	A C A T T T C T A G G C A C A T G T G A G G C A T C T T T C C T G G A G		2%	2%			
BRD9-NM_001009877.3eU1383-NP_001009877.2aa413PP	2	3%	1%	3%	1%	0			0			210	220	820	320	490	C T T C C A G C T G A A G C A G A G A A G A A A T G T T C C C A T G A A		2%	4%			
BUB1B-NM_001211.6eU2547-NP_001202.5aa799Q*	4	9%	6%	11%	4%	0			0			230	330	830	260	350	G C A G A A T T A A C A G T A A T A A A G G T A T C T T C T C A A C C T	16%	9%	8%	2%		
BUB3-NM_001007793.3eU140-NP_001007794.1aa19SF	4	6%	2%	7%	0%	0			1	1%		280	190	800	330	170	T G A A C C A G C C A C C C G A G G A T G G C A T C T C C T C C G T G A	6%	7%	6%	3%		1%
C14orf119-NM_017924.4eU797-3'UTR+258	2	2%	0%	2%	0%	0			0			280	130	740	210	300	T T T G C T T C T T T C C G A G A G A T G T C A A G T C C T C A A G A A	2%		2%			
C16orf72-NM_014117.3eU1323-3'UTR+94	4	7%	3%	8%	2%	0			0			290	140	780	410	250	A A T T G C A A A G G A A A C A T G A G G C C A T C T T C C C T T G T T	8%	7%	10%	4%		
C1QTNF5-NM_001278431.2eU915-NP_001265360.1aa228SF	2	27%	22%	27%	22%	3	64%	11%	0			350	300	750	150	260	A T G C C A G C A T C A A G A C A G A C A G C A C C T T C T C C G G A T		43%	12%		54% 63% 76%	
C1R-NM_001354346.2eU2020-NP_001341275.1aa648SF	2	2%	1%	2%	1%	0			3	25%	4%	540	110	490	350	550	T C C G G G G A A A G A A T A G G A T G G A T G T G T T C T C T C A A A	3%	2%				22% 29% 24%
C2CD5-NM_001286174.3eU1119-NP_001273103.1aa358PS	3	13%	9%	17%	6%	0			1	4%		280	250	750	280	230	T T T C C A T T T T T T A C C T T G A C G G C A T T T C C T C C T G G A		13%	21%	4%		4%
C8orf33-NM_023080.3eU919-3'UTR+204	2	2%	0%	2%	0%	0			0			410	70	730	220	290	G A C C C C G T T C G T T T T C T G A T G A A A T G T T C T C T C T T T		2%	2%			
C9orf40-NM_017998.3eU993-3'UTR+107	4	29%	12%	35%	7%	0			0			370	330	710	280	170	A G T T A T T T T C C A T A C T T G A A G T T A T A T T T C C A A A C C	30%	32%	43%	13%		
CAMTA2-NM_001171166.2eU2604-NP_001164637.1aa853SF	4	7%	3%	7%	3%	0			0			340	320	730	310	40	C G C C C T C G G A G C T G T C G G A T G G C A C C T T T T C C G T C A	11%	5%	6%	5%		
CARHSP1-NM_001042476.2eU515-NP_001035941.1aa52SL	2	2%	1%	2%	1%	0			0			480	280	510	360	300	C A C T G C C C A C T C G C C G G A C G A G G A C C T T C T C G G C G A	3%		2%			
CARHSP1-NM_001042476.2eU888-3'UTR+84	4	2%	1%	2%	1%	0			0			370	310	680	290	480	A G G C A G C A G A C A C T G G A G A T G A C A T T C T T C C A C A C G	2%	3%	3%	2%		
CASC3-NM_007359.5eU3702-3'UTR+1578	3	8%	0%	8%	0%	0			3	77%	3%	360	130	730	210	310	C C C T T T G C C T T A A A C C T G A A G A T G T C T C C T C A A G C C	8%	9%	8%			78% 73% 79%
CASP10-NM_001206524.2eU558-NP_001193453.1aa128SL	2	15%	9%	21%		0			0			220	230	810	150	310	T G C T C T A C G A A C T G T C A G A A G G C A T T G A C T C A G A G A			21%	9%		
CASP2-NM_001224.5eU1427-3'UTR+400	4	9%	4%	11%	1%	0			0			260	70	710	400	100	A G G A C A C C C T C C C A C A T G A T G T C A C C T C C C C A T C A T	9%	11%	12%	3%		
CASZ1-NM_001079843.3eU1614-NP_001073312.1aa433SF	2	7%	1%	8%		0			0			400	260	550	520	220	A C A C T C C C G A G T A C C T G A A G T C A A C C T T C T C C A A A A		8%		6%		
CAVIN2-NM_004657.6eU905-NP_004648.1aa248RC	3	5%	0%	5%	0%	3	50%	4%	0			410	340	800	210	350	A A A G T G G A T A G C C T C A A G A A A G C A T T T T C T C G C C A G	5%	6%	5%		47% 49% 55%	
CBX5-NM_001127321.1eU7552-3'UTR+6856	2	19%	13%	19%	13%	0			0			280	350	700	470	250	C T T T G G T T G T T T T C T A A G A T G G A A T T T T T C C T G T T C		28%	10%			
CBX6-NM_001303494.2eU3119-3'UTR+1908	4	13%	6%	16%	3%	0			3	77%	5%	390	210	710	220	290	C G T G A C T T T T T T G T A A A G A A G T T G T G T T T T C A G A G G	18%	16%	13%	5%		83% 73% 77%
CBY1-NM_001002880.4eU337-NP_001002880.3aa16RW	4	12%	6%	15%	5%	0			1	7%		410	80	780	300	260	A A T A C G T T C A G T C C G A A G A A G A C A C C T C C T C G G A A G	17%	18%	9%	6%		7%
CBY1-NM_015373.4eU197-NP_056188.1aa16RW	4	27%	11%	32%	5%	0			0			410	80	780	300	260	A A T A C G T T C A G T C C G A A G A A G A C A C C T C C T C G G A A G	31%	37%	28%	12%		
CCDC186-NM_001321829.1eU5740-3'UTR+2651	3	23%	8%	26%	8%	0			0			430	310	700	330	170	G T G G T T T A T T T G A G C T G G A A G T G A T T T T T T C T G T G T	21%		32%	16%		
CCDC43-NM_001099225.2eU1675-3'UTR+1187	3	4%	1%	4%	1%	3	41%	0%	0			400	340	660	290	240	T T G T C T A G A A G C C T A A G G A C A G C A A T T T C T C T G A C A		4%	3%	4%	41% 42% 41%	
CCDC71L-NM_175884.6eU1351-3'UTR+381	2	5%	3%	5%	3%	3	22%	6%	0			370	350	620	350	310	T C T G G A A G T C C T C C G A A G A C A T T A T T T T T C C A A A G G	7%	3%			17% 28% 20%	
CCND1-NM_053056.3eU227-NP_444284.1aa23LL	3	5%	1%	5%	1%	0			0			360	90	460	550	220	C C G C C G C G C G T A C C C C G A T G C C A A C C T C C T C A A C G A	6%	6%	4%			
CCNE2-NM_057749.3eU118-NP_477097.1aa23Q*	4	19%	7%	23%	1%	0			0			160	260	740	330	320	C A G C C C C A G C C C A G C C A G A C G G A A T C C C C C C A A G A A	24%	23%	22%	8%		
CCNF-NM_001323538.2eU2173-NP_001310467.1aa441Q*	2	4%	1%	4%	1%	0			0			240	210	750	300	160	T G C C A C C A T C A G G C C A G G A A G T C A T G T T T A C A G T G T	5%		4%			
CCP110-NM_001199022.3eU779-NP_001185951.2aa206SL	3	14%	6%	14%	6%	0			3	6%	1%	270	200	730	190	250	A A G A A A C T C T T A T T T C T G A T G G T C C C T T C T C A G T A A	14%	20%	8%			6% 7% 5%
CCT6A-NM_001009186.2eU1653-3'UTR+108	4	1%	0%	1%	0%	3	5%	1%	0			260	320	700	550	390	A G C T T C A A A T A A T T T T G A A A G A A A T T T T C C C A T A T G	2%	1%	1%	1%	5% 5% 4%	
CCT6P1-NR_003110.2eU321-ncr	2	6%	1%	6%	1%	0			0			240	180	600	530	290	A G A T C T C T A C A T T T C T G A A G G C C T T C A T C C C A G A A T		7%	5%			
CD44-NM_000610.4eU642-NP_000601.3aa170PL	4	3%	1%	3%	1%	0			0			210	300	760	240	250	A A T A C A G A A C G A A T C C T G A A G A C A T C T A C C C C A G C A	3%	2%	3%	2%		
CD44-NM_001001391.2eU642-NP_001001391.1aa170PL	3	3%	1%	3%	1%	0			0			210	300	760	240	250	A A T A C A G A A C G A A T C C T G A A G A C A T C T A C C C C A G C A	4%	2%	2%			
CD55-NM_000574.5eU503-NP_000565.1aa139LL	2	3%	1%	3%		0			0			470	290	590	520	220	T G C C G T C C A G G T T A C A G A A G A G A A C C T T C T C T A T C A		3%		2%		
CDC25A-NM_001789.3eU3224-3'UTR+1179	3	3%	1%	3%	1%	3	32%	4%	0			310	260	730	330	270	T G G C A T G G A C A T G A C T G G A T A G A A T T T T C T C A G G A G	1%	4%	4%		30% 36% 29%	
CDC40-NM_015891.3eU849-NP_056975.1aa277PP	2	6%	2%	6%	2%	1	1%		0			180	310	670	280	600	A A C T A T G C C A C C T G A G A A G T G T T A T C T T C C C A A A A A		7%	4%		1%	
CDC42EP1-NM_152243.3eU694-NP_689449.1aa103PS	4	3%	1%	4%	1%	0			0			220	260	760	430	170	G G G G C G C C C C C C G G A G G A T G G C A T C T C C C C C T G C A	4%	2%	4%	1%		
CDC42EP3-NM_001270436.2eU2327-3'UTR+1224	3	10%	1%	10%	1%	0			0			210	120	740	170	250	T T T T T T A A G T C A G C A C T G A T G C C A C C C T C T C A G T G G	9%	11%	10%			
CDC42-NM_001039802.2eU1359-3'UTR+573	2	1%	0%	1%	0%	3	5%	1%	0			290	410	720	200	370	T T C C T A G A T C T A G T T T A G A A A A C A T G T T C C C C A T C T	1%	1%			6% 5% 4%	
CDC42-NM_001039802.2eU626-NP_001034891.1aa139PL	3	2%	1%	2%	1%	0			0			360	170	420	580	250	T T G C C A A G A A C A A A C A G A A G C C T A T C A C T C C A G A G A	3%	1%	2%			
CDC73-NM_024529.5eU2004-3'UTR+238	2	6%	2%	6%	2%	0			0			290	270	610	480	310	A A T T G T A T A T T T T G A T A G A A G T T T T T C T C C A T T G G	8%	5%				
CDCA7-NM_031942.5eU776-NP_114148.3aa228LL	2	2%	0%	2%		0			0			410	230	730	230	320	C C C T G G C T C G T T C C G T G G A A G A C A T C C C C T C C C A G G			2%	2%		
CDCP1-NM_022842.5eU1734-NP_073753.3aa548TM	4	7%	3%	8%	1%	0			3	46%	3%	210	300	730	330	320	T A C C T T A T T T C A A A G A G G A A G G C G T T T T C A C G G T G A	10%	8%	7%	3%		43% 49% 46%
CDH2-NM_001792.5eU276-NP_001783.2aa56LL	3	3%	1%	3%	1%	3	40%	2%	0			310	290	740	220	300	G A A G G A T G T G C A T G A A G G A C A G C C T C T T C T C A A T G T	3%	4%	2%		39% 42% 39%	
CDK2-NM_001798.5eU394-NP_001789.2aa72TI	4	4%	1%	4%	0%	0			0			160	110	650	230	350	A T A T T G T C A A G C T G C T G G A T G T C A T T C A C A C A G A A A	4%	5%	4%	2%		
CDK5R1-NM_003885.3eU956-NP_003876.1aa214SF	4	12%	4%	10%	2%	0			0			330	100	720	290	350	T C T A C A T G C T C T G C A G G G A T G T T A T C T C C T C C G A G G	13%	10%	8%	18%		

CENPJ-NM_018451.5eU190-NP_060921.3aa8SL	2	7%	1%	7%	1%	0			0			480	100	390	590	120	GGACTAAGATGTTCCTGATGCCAACCTCTTCAGAGT	8%	6%								
CENPJ-NM_018451.5eU3964-NP_060921.3aa1266PL	3	8%	3%	8%	3%	3	28%	2%	0			300	410	810	310	350	TTCCTGATGGACAAGAAGAAAGCATTTTCCCAGATG	5%	11%	7%		25%	29%	30%			
CENPO-NM_001199803.3eU2536-3'UTR+1602	3	18%	4%	18%	4%	0			0			420	80	840	250	250	CCTTGTTATGGGCCTCAGAAGCCATCTCCTCTCCAG	22%	15%	16%							
CEP120-NM_001375405.1eU468-NP_001362334.1aa21PP	3	16%	8%	21%	1%	0			0			230	270	680	460	270	CGTGTCCATCCTAGAAGGTCGGCATTTCCCCAAACG		20%	22%	7%						
CEP192-NM_032142.4eU5326-NP_115518.3aa1749SL	2	8%	2%	8%	2%	0			0			350	200	730	320	210	AGGTAGTGTTAAAAGGCGAAGTCATTTCTTCAGGAA	9%	7%								
CEP57L1-NM_001083535.3eU354-NP_001077004.1aa44PL	4	27%	9%	31%	5%	0			0			420	260	630	400	140	GCCATCCTGCAAACTTAGAAGTTACCTCTCCTAAGA	36%	27%	30%	14%						
CEP57L1-NM_001271852.3eU203-NP_001258781.1aa44PL	3	38%	21%	38%	21%	0			0			420	260	630	400	140	GCCATCCTGCAAACTTAGAAGTTACCTCTCCTAAGA	63%	26%	25%							
CEP57L1-NM_001350652.2eU458-NP_001337581.1aa44PL	2	32%	7%	32%	7%	0			0			420	260	630	400	140	GCCATCCTGCAAACTTAGAAGTTACCTCTCCTAAGA	37%	27%								
CFL1-NM_005507.3eU785-3'UTR+203	4	1%	0%	1%	0%	0			3	4%	1%	350	230	480	290	220	CCCTCCATCCCTTGACGGTTCTGGCCTTCCCAAACT	1%	1%	1%	0%				4%	4%	5%
CHAC2-NM_001008708.4eU578-NP_001008708.1aa165FF	4	24%	4%	26%	3%	2	6%	1%	0			520	300	540	390	190	TGTGCCAGAAGAAGCAGATGAGCATCTTTTCGCTTT	24%	29%	26%	19%	7%		5%			
CHAMP1-NM_001164144.3eU2989-3'UTR+234	4	7%	2%	8%	1%	0			0			190	310	640	180	230	TTCTGTATAGTCCAGATGGATTAAACTTCTCATTTC	8%	8%	9%	5%						
CHCHD3-NM_001317177.2eU274-NP_001304106.1aa41PS	4	7%	3%	9%	2%	0			0			170	440	790	200	320	AATGTGATTGATCGAATGAAGGAATCCTCTCCATCT	9%	7%	9%	3%						
CHCHD3-NM_017812.4eU274-NP_060282.1aa41PS	3	9%	5%	9%	5%	0			0			170	440	790	200	320	AATGTGATTGATCGAATGAAGGAATCCTCTCCATCT	14%	9%	4%							
CHSY1-NM_014918.5eU3917-3'UTR+916	2	2%	0%	2%	0%	0			0			230	220	690	170	430	TTAAATTTCAAGAAGGATTTGGCATTTTCTCTTCTT	2%		2%							
CIART-NM_001300838.2eU1274-NP_001287767.1aa383LL	2	17%	0%	17%	0%	0			0			270	160	620	310	330	TCCTCCAGTTGCTGCTGATGCTCATCTTCTCAACCT	16%		17%							
CKAP2L-NM_001304361.2eU793-NP_001291290.1aa116HY	3	8%	1%	8%	1%	0			3	7%	5%	310	210	660	310	310	GGAGTAAAACCCTCAAGGACGGTTCCCTCTCACTTT	9%	7%	7%					13%	3%	4%
CLINT1-NM_001195555.2eU1600-NP_001182484.1aa475LL	4	7%	2%	7%	0%	0			0			170	290	500	160	650	TAGCACAGTGCTGCAGAAGCCTAATCCTCTCTATAA	7%	7%	7%	4%						
CLNS1A-NM_001293.3eU658-NP_001284.1aa193SF	4	3%	1%	3%	1%	0			0			430	350	710	200	260	CCACACTGGAGAGATTAGAAGGAATGCTTTCTCAGT	3%	5%	2%	2%						
CLNS1A-NM_001293.3eU660-NP_001284.1aa194Q*	3	2%	1%	2%	1%	0			3	22%	1%	470	290	430	350	710	ACACTGGAGAGATTAGAAGGAATGCTTTCTCAGTCT	2%	1%	1%					21%	24%	22%
CMC4-NM_001018024.3eU133-5'UTR-322	2	13%	5%	16%		0			0			310	50	760	250	330	GGGGGACAGCCCTTTAAGACGACATCTCCGCGAACG	16%			10%						
CMPK2-NM_207315.4eU2764-3'UTR+1203	2	6%	2%	6%	2%	0			0			320	320	660	400	290	TATCTACCATTTCTTAAGAAGACATTACTCCAAAAT		7%	4%							
CMTR1-NM_015050.3eU408-NP_055865.1aa82SF	3	2%	1%	3%	1%	0			0			530	290	620	530	60	AAGCAGACTCTCTTGTGGAAGGAACTTCTTCTCGCT		3%	2%	2%						
CMTR1-NM_015050.3eU410-NP_055865.1aa83RC	2	4%	1%	4%	1%	0			0			490	230	530	290	620	GCAGACTCTCTTGTGGAAGGAACTTCTTCTCGCTAT	5%	4%								
CNIH1-NM_005776.3eU2507-3'UTR+2025	3	39%	20%	39%	20%	0			0			230	210	860	330	270	ACTGGTTGGGATTTGTGGAAGCCATTTTCTCATGTT	62%	24%	32%							
CNKSR3-NM_001368116.1eU603-NP_001355045.1aa99HY	2	19%	10%	19%	10%	3	41%	8%	0			480	270	780	290	290	AACTTGGTTCTGAAACTGAGAGCATCTTCCCACAAT	26%		12%		39%	50%	35%			
CNOT1-NM_001265612.2eU2396-NP_001252541.1aa708PL	4	4%	1%	4%	0%	0			0			330	190	640	460	210	CTAGTGCTAGCAGCTTAGATGCCATTTCTCCTGTTC	4%	4%	4%	2%						
CNOT6-NM_001370472.1eU4251-3'UTR+2190	4	32%	10%	37%	1%	1	7%		2	5%	1%	350	130	800	300	110	TGTATTTGTTAATGGAGGATGTCATCTTTTCATAGA	36%	38%	39%	17%			7%		5%	6%
CNPPD1-NM_001321389.1eU472-NP_001308318.1aa15SF	4	35%	9%	39%	3%	2	17%	2%	3	37%	10%	370	340	880	230	220	GGCTCCTGCTGGACGAAGAAGGCACCTTCTCCCTCG	37%	42%	38%	22%	16%		19%	41%	44%	25%
CNPPD1-NM_015680.6eU141-NP_056495.4aa15SF	4	33%	14%	40%	5%	2	15%	2%	2	25%	3%	370	340	880	230	220	GGCTCCTGCTGGACGAAGAAGGCACCTTCTCCCTCG	43%	35%	42%	12%		16%	13%	28%		23%
CNPY2-NM_001190991.3eU720-NP_001177920.1aa57RW	4	21%	10%	25%	3%	0			1	7%		380	330	750	280	190	CCCAAGAAGACCATTCAGATGGGATCTTTCCGGATC	22%	26%	28%	6%						7%
CNPY2-NM_014255.7eU362-NP_055070.1aa57RW	4	24%	9%	29%	0%	1	2%		2	3%	1%	380	330	750	280	190	CCCAAGAAGACCATTCAGATGGGATCTTTCCGGATC	29%	29%	29%	11%			2%	2%	3%	
CNPY3-NM_001318842.1eU1348-NP_001305771.1aa303LF	4	19%	6%	22%	1%	0			1	4%		410	220	810	150	320	GAGGATGAGGGCATCCAGAAGGCATCCCCTCTCACA	23%	22%	20%	10%					4%	
COL5A1-NM_000093.5eU6316-3'UTR+414	3	3%	1%	3%	1%	0			0			350	260	420	590	410	CTAAATTCAACTTGAAGATGTGTATTTCCCCTGACC	3%	3%	2%							
COL6A1-NM_001848.3eU3255-3'UTR+87	4	4%	1%	4%	1%	0			0			210	380	480	560	390	AAACAGAGTAAAATGTGATGCGAATTTTCCCGACCA	3%	5%	5%	3%						
COL8A1-NM_001850.5eU2222-NP_001841.2aa654TI	3	3%	1%	4%	0%	0			0			130	380	700	300	300	AGAACTACAACCCGCAGACAGGCATCTTCACCTGTG		4%	4%	3%						
CPSF7-NM_001136040.4eU1585-3'UTR+52	4	3%	1%	3%	1%	3	7%	1%	0			340	130	600	290	290	AAATGTTTTTTTAATGGACTTGCATCTCCTCACCTT	4%	2%	3%	2%	6%	8%	8%			
CREBL2-NM_001310.4eU2718-3'UTR+2058	2	6%	2%	6%	2%	0			0			390	110	530	410	430	CGTCTTTATTGTGCTTGAAGTATTTCTTCTCTGGTT		8%	4%							
CRKL-NM_005207.4eU1516-3'UTR+76	3	16%	2%	16%	2%	3	56%	3%	0			500	340	760	250	350	AGTCTCCTTTGAAGTGGGAAAGCATTTTCTCTCATA	14%	18%	17%		56%	60%	54%			
CSE1L-NM_001256135.2eU1172-NP_001243064.1aa350SF	2	1%	0%	1%	0%	3	4%	1%	0			230	280	700	340	250	TTTTTGAGGGACCTGTGACAGGAATCTTCTCTGGTT		1%	1%		4%	3%	4%			
CSF1-NM_000757.6eU437-NP_000748.4aa88LL	4	13%	6%	15%	3%	0			0			330	360	720	460	210	CCAGTGTGCTACCTTAAGAAGGCATTTCTCCTGGTA	15%	12%	18%	5%						
CSTF2-NM_001306206.2eU136-NP_001293135.1aa37SF	4	10%	3%	11%	2%	0			0			510	170	670	430	270	CTACTGAAGAGCAGTTGAAGGACATCTTTTCTGAGG	13%	11%	9%	7%						
CTBP1-NM_001012614.2eU1934-3'UTR+241	4	13%	7%	16%	2%	0			0			70	330	670	210	480	TTAAGCAGAAGAAGTCAGTAGTTATTCTCCCATGAA	18%	14%	17%	3%						
CTBP2-NM_001083914.3eU1773-3'UTR+26	4	5%	1%	5%	0%	0			0			220	360	710	150	370	AATAGCAGAGAATGCCAGAAGGTAATCACTCAGATA	5%	6%	5%	3%						
CTDP1-NM_001202504.1eU579-NP_001189433.1aa150HY	3	12%	9%	12%	9%	0			2	12%	2%	330	210	780	350	410	TTTTTAGACCCCGAGAAGAAGCTTTTTTCTCACCGA	22%	6%	8%					11%		14%
CTDSPL2-NM_016396.3eU2942-3'UTR+1373	2	5%	1%	5%	1%	0			0			430	370	600	500	180	TGTAAAGGATGTCAAAGAACGGCACTTTTTCTAAAG	6%		4%							
CTNNA1-NM_001290307.3eU3348-3'UTR+734	4	28%	8%	32%	2%	3	1%	0%	3	7%	1%	220	310	900	240	370	AGGAAGCAGTCCCTGGAGAAGGCATGTTCCCAGAAA	34%	30%	34%	16%	1%	2%	1%	6%	8%	8%
CTTN-NM_001184740.2eU2120-3'UTR+32	2	9%	8%	15%		0			0			270	340	610	380	440	GCGTGTTTTTGCTCCTGAGGTGCATTTTCTCATCAT			15%	4%						
CTTN-NM_005231.4eU3114-3'UTR+1278	4	5%	1%	4%	1%	0			0			270	340	610	380	440	GCGTGTTTTTGCTCCTGAGGTGCATTTTCTCATCAT	3%	5%	4%	6%						
CUEDC2-NM_024040.3eU157-NP_076945.2aa33SF	2	3%	2%	3%	2%	0			0			360	170	820	270	250	ACCTCAGTGGCTTGGATGAGGTCATCTTCTCCTATG	4%		2%							
CYB561A3-NM_001161452.2eU1095-NP_001154924.1aa165SF	2	6%	2%	6%	2%	0			0			270	120	710	80	440	TCCACGTCTTTTTTGGAGCCGCCATCCTCTCTCTGT	8%	5%								
CYBRD1-NM_001127383.2eU1367-3'UTR+821	4	7%	4%	9%	3%	0			0			400	190	820	140	290	GATTAGAGCAGGTGGTTGAAGAGATCTTCTCTGGTC	13%	8%	6%	2%						
CYP51A1-NM_000786.4eU1571-NP_000777.1aa486PP	4	16%	4%	18%	2%	0			2	3%	1%	390	240	520	570	420	TGAATTTGATCTCATTGATGGATACTTTCCCACTGT	15%	19%	19%	10%				2%	4%	
CZIB-NM_001304759.2eU788-3'UTR+303	4	25%	11%	30%	4%	0			3	7%	2%	220	160	810	310	390	AAGAGTATTTTTAAGGAGATGGTATCTCCCCAGTCA	28%	28%	35%	10%				8%	8%	5%
DAD1-NM_001344.4eU336-NP_001335.1aa90PL	4	3%	1%	3%	1%	0			0			270	240	770	310	170	AGAACAAAGCGGATTTCCAAGGCATCTCCCCAGAGC	4%	3%	3%	2%						
DDHD2-NM_001164232.2eU3536-3'UTR+1200	2	6%	1%	6%	1%	0			0			400	300	800	180	190	CTGCACACTAATTTTGTCAAGGCATCTTTTCACTAC		5%	7%							
DDX21-NM_001256910.2eU581-NP_001243839.1aa121SF	4	23%	6%	26%	2%	0			3	68%	1%	400	350	750	300	320	TACCTGTGGAACAAAAAGAAGGCGCTTTCTCTAATT	28%	25%	23%	15%				68%	68%	66%
DDX46-NM_001300860.2eU1839-NP_001287789.1aa560SL	4	24%	10%	30%	2%	0			2	3%	1%	340	170	550	430	250	TTCGTCCTGATCGACAGACGGTTATGTTTTCAGCTA	27%	32%	30%	9%				3%		4%
DDX46-NR_125341.2eU1812-ncr	3	28%	7%	28%	7%	0			0			340	170	550	430	250	TTCGTCCTGATCGACAGACGGTTATGTTTTCAGCTA	33%	19%	30%							
DDX50-NM_024045.2eU489-NP_076950.1aa140SF	4	7%	3%	8%	3%	0			3	46%	7%	360	390	760	310	260	TAACACGTGAACAGAAAGAAGGAGCCTTCTCCAATT	11%	7%	5%	5%				42%	44%	54%
DDX54-NM_001111322.2eU1976-NP_001104792.1aa650SL	4	11%	5%	12%	5%	0			1	2%		400	130	820	380	390	AGGCGGGAGAGAGTGTGGAGGACATTTTCTCAGAGG	16%	14%	7%	8%				2%		
DDX5-NM_001320595.2eU560-NP_001307524.1aa102PL	4	4%	2%	5%	1%	0			0			210	360	710	390	200	CAGTTCTAAATTTTTATGAAGCCAATTTCCCTGCAA	6%	6%	4%	1%						
DEPDC7-NM_001077242.2eU308-NP_001070710.1aa77SF	2	20%	5%	20%	5%	0			0			490	190	700	330	170	TTGGTTCAGAAGCTGTGGATGTCATTTTTTCTCACC		24%	17%							
DHCR7-NM_001163817.2eU1876-3'UTR+236	4	12%	4%	14%	2%	0			0			370	510	560	250	440	TGCCGTATTGCCAGCACAGACGGATTTTCTCTAATC	12%	16%	15%	6%						
DKK1-NM_012242.4eU125-5'UTR-31	4	11%	5%	14%	1%	1	1%		3	2%	0%	310	170	610	420	350	CCCAGGCTTGCAAAGTGACGGTCATTTTCTCTTTCT	14%	13%	14%	5%		1%		2%	2%	3%
DLGAP5-NM_001146015.2eU987-NP_001139487.1aa288SL	3	3%	2%	3%	2%	0			3	38%	1%	320	210	760	220	190	CAAGTGGAATGAATCCAGATGGAGTCTTATCAAAAA	5%	2%	2%					38%	39%	36%
DMTF1-NM_001142326.2eU1955-NP_001135798.1aa525PL	2	4%	1%	4%	1%	0			0			260	280	720	360	360	CTCCAGACGCCCTAGAAGCAGACACTTTCCCAGATG		4%	3%							
DNAI4-NM_024763.5eU2083-NP_079039.4aa686HH	3	17%	7%	17%	7%	0			0			380	160	700	430	380	TTTGGCTGGCACTGAAGAAGGTCATATTCACAAATG	21%	10%	21%							
DNAJA2-NM_005880.4eU368-NP_005871.1aa89SF	4	7%	2%	8%	1%	0			0			460	130	730	290	450	GCGGAGGTGGTGGCATGGATGATATTTTCTCTCACA	9%	8%	7%	4%						
DNAJB1-NM_001300914.2eU1104-NP_001287843.1aa223PL	4	24%	5%	26%	1%	1	1%		3	2%	0%	310	360	780	240	210	ACCTCATTATTGAGTTTGAAGTGATCTTCCCCGAAA	26%	27%	25%	16%	1%			1%	2%	2%
DNAJB1-NM_001300914.2eU695-NP_001287843.1aa87HY	4	2%	1%	3%	0%	0			0			300	330	650	370	430	AGCGGCTGTACCAAGAAGATGAAAATCTCCCACAAG	3%	2%	3%	1%						
DNAJC13-NM_001329126.2eU1462-NP_001316055.1aa397SL	4	20%	6%	22%	2%	0			2	20%	9%	280	200	830	180	400	TACATGCAGTAACACAAGATGGTCTCTTCTCAGAAA	21%	25%	21%	11%				26%		14%
DNAJC3-NM_006260.5eU2805-3'UTR+1173	4	55%	23%	67%	2%	1	8%		3	23%	6%	320	90	840	250	250	GTTGTTTCATTTAATAAGATGGCATCTCCTCTTGAG	69%	65%	66%	21%	8%			27%	25%	16%
DNM2-NM_001005360.3eU391-NP_001005360.1aa76SL	3	3%	0%	3%	0%	0			0			360	120	700	270	290	GGCGGCCTCTCATTCTGCAGCTCATCTTCTCAAAAA	3%	2%	3%							
DPY19L4-NM_181787.3eU1932-NP_861452.2aa611LL	4	12%	8%	14%	9%	0			0			440	240	580	310	330	TTTGCCTCTTTACAATGATGATGATCTTCTCAAGAG	6%	23%	12%	5%						
DR1-NM_001938.3eU1241-NP_001929.1aa168Q*	4	5%	1%	6%	1%	0			0			280	280	830	100	380	GCCAGTGCATCTAATCAGGCGGGATCTTCTCAGGAT	5%	6%	7%	4%						
DSTYK-NM_015375.3eU1504-NP_056190.1aa446PL	2	7%	0%	7%	0%	0			0			200	200	700	290	390	CTAACATGGAGTTTAAAGACGTCATTGTCCCTGAGA		7%	7%							
DUSP12-NM_007240.3eU289-NP_009171.1aa91LL	2	3%	1%	2%		0			0			320	330	540	270	270	AGCGCTGGACAAACCCGAGACGGACCTACTCAGCCA		2%		4%						
DYNC2I2-NM_052844.4eU566-NP_443076.2aa149LL	3	2%	0%	2%	0%	0			3	27%	1%	310	160	710	140	250	TGGACCGAGCAGCAGCAGATGGTGTCTTGTCTGTAT	2%	2%	1%					26%	28%	27%
EBNA1BP2-NM_001159936.1eU328-NP_001153408.1aa60PL	2	4%	1%	4%	1%	0			0			380	220	380	620	390	GACGTGCGTGCGGCGAGATGGACACTCCCCCGCTCT	4%	3%								
EBNA1BP2-NM_006824.3eU186-NP_006815.2aa5PL	4	1%	1%	2%	0%	0			0			380	220	380	620	390	GACGTGCGTGCGGCGAGATGGACACTCCCCCGCTCT	2%	2%	1%	1%						
EDC4-NM_014329.5eU2414-NP_055144.3aa735SL	4	36%	13%	42%	6%	1	9%		3	9%	4%	280	0	810	210	170	GCCGCACTCGTTCCCCTGATGTCATCTCCTCAGCTT	47%	35%	44%	19%			9%	14%	6%	7%

EGFR-NM_001346897.2eU408-NP_001333826.1aa49LL	4	20%	11%	24%	9%	0		0			390	210	650	420	350	GCAGTTGGGCACTTTTGAAGATCATTTTCTCAGCCT	33%	24%	15%	9%				
EID2-NM_153232.4eU747-NP_694964.3aa222PL	2	4%	2%	4%	2%	0		0			250	150	650	180	230	TAGCTCTGACTGCCTCTGAAGTTATCAACCCTCTGA		2%	5%					
EIF1AD-NM_001242481.2eU571-NP_001229410.1aa69LL	2	5%	1%	6%		0		0			440	260	800	350	440	GAACATCTGGATCAAGAGAGGGGACTTTCTCATTGT		6%		4%				
EIF2AK2-NM_001135651.3eU1767-NP_001129123.1aa504SL	4	21%	9%	26%	1%	0		3	5%	2%	220	160	840	160	290	TTTTCACAGACCTACGGGATGGCATCATCTCAGATA	26%	26%	25%	8%		6%	7%	3%
EIF2AK2-NM_001135651.3eU882-NP_001129123.1aa209SL	4	6%	3%	7%	1%	0		3	47%	4%	270	320	770	140	200	CTTCTGAATCATCATCTGAAGGTGACTTCTCAGCAG	7%	6%	8%	2%		45%	46%	52%
EIF2A-NM_001319043.2eU1206-NP_001305972.1aa397PL	4	4%	1%	4%	1%	0		0			320	290	710	440	110	CTTGGCAGCCATTTTTGGATGGAATATTTCCAGCAA	5%	5%	3%	2%				
EIF2S3-NM_001415.4eU110-NP_001406.1aa33HY	4	10%	4%	12%	1%	0		2	1%	1%	310	130	720	300	250	TTGGATGTTACCAAGTTGACGCCACTTTCACACGAA	12%	11%	12%	4%		1%		2%
EIF3J-NM_001284335.2eU1268-3'UTR+605	3	2%	0%	2%	0%	0		0			360	320	450	500	490	AACTTTGAAGCTAAAGAAGGTAAACCTTTCCATTAT		2%	2%	1%				
EIF4G1-NM_001194946.2eU3101-NP_001181875.2aa981RC	3	2%	0%	2%	0%	0		3	48%	2%	340	220	710	220	410	AAAATCATTAAAGAAAAGAAGACGTCATCCCGCATC	2%	1%	2%			49%	46%	49%
EIF5A-NM_001970.5eU367-NP_001961.1aa74PL	3	2%	0%	2%	0%	0		0			210	150	720	280	310	TTACTGGGAAGAAATATGAAGATATCTGCCCGTCAA	2%	2%	1%					
ELAVL1-NM_001419.3eU543-NP_001410.2aa127SF	4	17%	6%	20%	2%	0		2	2%	0%	410	150	850	140	370	TGACCCAGAAGGACGTAGAAGACATGTTCTCTCGGT	22%	18%	19%	8%		2%	2%	
ELL2-NM_012081.6eU1079-NP_036213.2aa317PS	4	2%	1%	2%	1%	0		0			190	340	610	60	560	GTATGTTCTAGTAGAGACGCTGTATCTTCTCCTCAG	3%	2%	1%	1%				
EMC1-NM_001271427.2eU3137-3'UTR+143	2	2%	0%	2%	0%	0		0			570	230	470	200	520	AAGAACTGTAGGGAAGATGGATGACCTTCACGCAGA	2%	2%						
EMP1-NM_001423.3eU1297-3'UTR+634	4	4%	2%	4%	2%	0		1	3%		700	210	620	520	240	GGGTTAGCTAAACCAAGAAGGAGACCTTTTCACAAT	4%	3%	6%	2%		3%		
ENGASE-NM_001042573.3eU4196-3'UTR+1843	2	32%	8%	38%		0		0			330	270	340	500	230	ACTCGACTTTTTTTCAGCTGTGACCATTCCCGGGAG	38%			27%				
EPB41L3-NM_001281533.2eU361-NP_001268462.1aa89Q*	4	7%	2%	8%	2%	0		0			320	290	550	260	570	TATCAGCAATTAGAAGACGATAAACTTTCTCAGAAA	8%	10%	6%	5%				
EPS8-NM_004447.6eU3448-3'UTR+730	4	4%	1%	4%	1%	0		0			620	60	680	380	230	AAAGCACAAATGCGAAAGAGGTCATGTCTTCTCAAA	3%	5%	4%	3%				
EPS8-NM_004447.6eU3450-3'UTR+732	4	7%	3%	8%	3%	0		3	39%	3%	320	200	620	60	680	AGCACAAATGCGAAAGAGGTCATGTCTTCTCAAAAT	5%	11%	7%	5%		38%	37%	42%
ERBIN-NM_001006600.3eU695-NP_001006600.1aa136Q*	2	3%	1%	3%	1%	0		0			280	420	610	130	360	CCTATTTCCAAGCTCCCTGATGGATTTTCTCAGCTG		4%	3%					
ERCC3-NM_000122.2eU335-NP_000113.1aa91PL	2	2%	0%	2%	0%	0		0			290	210	660	530	70	ATGGCCATATCTTCTTGGAAGCCTTCTCTCCAGTTT		2%	2%					
ERMAP-NM_001017922.2eU2020-3'UTR+339	2	19%	7%	24%		0		0			350	210	790	260	360	ACTCCAGGGGTTATTTAGAAGACACTTTCTCTGCCT		24%		14%				
ESF1-NM_001276380.2eU2167-NP_001263309.1aa695PL	4	16%	3%	17%	2%	0		1	2%		460	220	670	440	120	CGGTAAAATCTGCAAAAGATGGCACATCTCCAGAAG	17%	19%	15%	13%		2%		
EXO5-NM_001346946.2eU1568-3'UTR+17	4	30%	9%	34%	4%	0		1	8%		240	400	760	120	360	AAAAAGCCAAATGAATAGAAGGTATGCTTTCAAGAA	38%	29%	34%	17%		8%		
EZH2-NM_001203247.2eU821-NP_001190176.1aa229SL	4	30%	10%	35%	3%	0		3	3%	1%	280	190	800	320	230	CTTCTGATAAAATTTTTGAAGCCATTTCCTCAATGT	38%	32%	34%	15%		4%	2%	4%
EZH2-NM_004456.5eU821-NP_004447.2aa229SL	4	88%	9%	91%	9%	0		1	50%		280	190	800	320	230	CTTCTGATAAAATTTTTGAAGCCATTTCCTCAATGT	100%	81%	90%	80%				50%
EZR-NM_001111077.2eU327-NP_001104547.1aa68Q*	4	1%	1%	2%	0%	0		3	31%	3%	210	240	770	280	310	TGGCTGAAGCTGGATAAGAAGGTGTCTGCCCAGGAG	1%	2%	1%	1%		29%	34%	29%
FAF2-NM_014613.3eU1247-NP_055428.1aa408PP	4	5%	3%	6%	2%	0		0			250	240	570	640	390	AGAAAAGTTTCAGATTGAAGCCAATTTTCCCAGGCG	8%	4%	7%	2%				
FAF2-NM_014613.3eU2540-3'UTR+1179	4	22%	7%	26%	3%	0		0			420	300	770	310	40	GCCTGTGTAATCTATTGGAAGGCACATTTTCATTTC	28%	26%	23%	12%				
FAM111B-NM_001142703.2eU1577-NP_001136175.1aa488TI	3	2%	0%	2%	0%	0		0			380	110	600	520	270	TAATTAGCAAATGTGCGAAGGTAACCTTCACTTATA	2%	1%	2%					
FAM118B-NM_001330446.1eU255-NP_001317375.1aa24PP	3	8%	3%	8%	3%	0		0			340	350	500	430	330	TTTTGGATTCTTCAACGATGGCGAACCTCCCACCAA	11%	6%	6%					
FAM217B-NM_001190827.2eU203-5'UTR-163	4	31%	9%	35%	9%	0		1	19%		260	150	790	400	220	AATATAAGAGGAATAAAGAAGTCACCTCCCCAGCTG	43%	26%	35%	22%		19%		
FAM72B-NM_001100910.2eU1037-NP_001094380.1aa62TT	2	5%	2%	5%	2%	0		0			270	180	650	460	270	AGTGGACTTCACTGGAAGATGCTATTTCACCAAAAT		6%	4%					
FAM91A1-NM_001317917.2eU2730-NP_001304846.2aa578SL	3	6%	1%	6%	1%	0		3	65%	4%	320	160	760	180	290	AAAACTTAATATTTAAAGATGGTGTCTTATCAGAAT	5%	6%	8%			64%	61%	68%
FAM98B-NM_173611.4eU583-NP_775882.2aa183SL	2	2%	0%	2%	0%	0		0			260	350	670	310	520	AAGTGGAATCAAAGGTGAAAGATATTCTCTCAAAGG		2%	2%					
FANCA-NM_000135.4eU474-NP_000126.2aa148LL	3	15%	1%	15%	1%	0		3	40%	7%	250	220	740	320	390	ACTGTGGAGCAGAGAAAGAAGCTGTCTTCCCTGTTA	16%	13%	15%			39%	34%	47%
FASTKD2-NM_001136193.2eU1118-NP_001129665.1aa309TI	4	8%	5%	9%	4%	0		3	74%	1%	250	150	790	140	520	AGCAAGTTTGGAAAATAGAAGATGTCTTCACATTAC	14%	9%	5%	3%		73%	74%	75%
FASTK-NM_006712.5eU626-NP_006703.1aa195PS	2	2%	0%	2%	0%	0		0			260	250	700	400	100	AGGCTCCGCCTCCCTCCGAAGCCACCTCCCCCTTTG		2%	2%					
FAT1-NM_005245.4eU9222-NP_005236.2aa3004SL	4	13%	4%	15%	2%	0		0			270	160	850	190	180	TTACTATCACGGCAACTGATGGCACCTTCTCATCAA	15%	17%	13%	7%				
FDFT1-NM_001287742.2eU1818-NP_001274671.1aa372PP	4	8%	4%	9%	3%	0		1	3%		210	400	620	240	460	CATCTCCACCATCCGGACGCAGAATCTTCCCAACTG	12%	11%	6%	4%		3%		
FDFT1-NM_001287742.2eU2033-3'UTR+77	2	2%	0%	2%	0%	0		3	77%	1%	310	70	650	220	310	TTTTTTCTTTAAGGATGGATGTTGTGTTCTCTTTAT		3%	2%			75%	76%	78%
FDX2-NM_001031734.4eU559-NP_001026904.2aa183PP	2	3%	1%	3%	1%	0		0			260	160	560	560	330	CAGGAACTTCTACGTGGATGGCCATGTCCCCAAGCC	3%		2%					
FGD1-NM_004463.3eU3472-NP_004454.2aa890FF	3	9%	3%	10%	1%	0		0			350	280	810	250	190	AGGGGAGCGGCCTGACAGAAGGCATGTCTTCAAGAT		10%	11%	6%				
FMR1-NM_001185075.2eU1916-3'UTR+41	4	4%	1%	5%	1%	0		0			360	330	660	280	170	CTAAACTGCATAATTCTGAAGTTATATTTCCTATAC	4%	5%	5%	2%				
FN1-NM_001306129.2eU191-5'UTR-77	2	2%	0%	2%	0%	0		0			330	570	740	350	250	ACCCCCGGGAGGCATTAGAAGGGATTTTTCCCGCAG	2%	2%						
FNBP1L-NM_001024948.3eU1760-NP_001020119.1aa532PP	3	23%	16%	23%	16%	0		1	7%		390	180	600	620	320	GAGACAGAACGGTGAAGAAGGCTACGTTCCCACGTC	41%	19%	9%				7%	
FNBP1L-NM_001164473.3eU1934-NP_001157945.1aa590PP	4	13%	7%	15%	7%	0		0			390	180	600	620	320	GAGACAGAACGGTGAAGAAGGCTACGTTCCCACGTC	11%	24%	12%	7%				
FNDC3B-NM_001135095.2eU4233-3'UTR+496	2	4%	2%	4%	2%	0		0			400	150	770	140	520	AGCAACAGCAACATACAGAAGATATGTTCACTCAGA		3%	5%					
FOCAD-NM_001375567.1eU3130-NP_001362496.1aa1021LL	2	7%	3%	7%	3%	0		0			450	240	840	230	260	TAGCCATTACCAACCCAGAGGGCAACTTCTCTCCTG	9%	5%						
FRA10AC1-NM_001347712.2eU623-NP_001334641.1aa68LL	4	14%	4%	14%	4%	0		2	15%	8%	220	240	800	140	390	GGAAGAAGCAAGAAATAGAAGGTTTCATCTCATAGC	19%	13%	11%	13%		9%		20%
FRA10AC1-NM_145246.5eU422-NP_660289.2aa68LL	2	19%	3%	19%	3%	0		0			220	240	800	140	390	GGAAGAAGCAAGAAATAGAAGGTTTCATCTCATAGC		17%	21%					
FUCA2-NM_032020.5eU1123-NP_114409.2aa346SF	4	4%	2%	5%	1%	0		0			320	220	700	170	120	ATATTGGGCCCACACTAGATGGCACCATTTCTGTAG	7%	4%	6%	1%				
FURIN-NM_001289823.2eU3488-3'UTR+878	2	3%	0%	3%	0%	0		0			600	130	710	270	290	GATCTCAGGGGCTGTTTGAGGATATATTTTCACTTT		2%	3%					
FXR1-NM_001013438.3eU1017-NP_001013456.1aa334PL	4	3%	1%	4%	1%	0		0			180	290	680	260	250	ATAAATTACCCAGAGAAGACGGTATGGTTCCATTTG	3%	5%	4%	2%				
FXYD5-NM_001164605.2eU1066-3'UTR+231	3	6%	3%	6%	3%	0		0			320	80	680	210	230	CCTTGGGGGCTGTCCCTCAAGTTATCTCCTCTGCTA	4%	6%	9%					
GBP1-NM_002053.3eU656-NP_002044.2aa196LL	4	3%	2%	3%	1%	0		0			450	170	520	400	330	CCTGGACTTGGAAGCAGATGGACAACCCCTCACACC	4%	4%	2%	1%				
GCLM-NM_001308253.2eU1480-3'UTR+454	4	17%	12%	19%	13%	0		0			320	340	700	390	390	AAACTGAAATACTGGAAGAAGATATTTTTCCTGTCA	27%	4%	27%	9%				
GDPD5-NM_001351167.2eU2959-NP_001338096.1aa360LL	2	6%	0%	6%	0%	0		0			330	300	440	370	420	CTGGATCATGCCCCCGGACGAGTACTGTCTCATGTG	7%	6%						
GLRB-NM_000824.5eU959-NP_000815.1aa261TI	2	28%	20%	28%	20%	0		0			270	250	820	220	260	GCTACTACACATGCGTGGAAGTCATCTTCACCCTGA		42%	14%					
GLUD1-NM_001318900.1eU744-NP_001305829.1aa212PL	4	2%	0%	2%	0%	0		0			160	270	690	250	370	GGAGTATATGGAATCCAGATGGTATTGACCCAAAGG	2%	2%	2%	2%				
GM2A-NM_000405.5eU469-NP_000396.2aa146SL	4	20%	10%	24%	7%	0		0			370	170	830	310	220	GCCACTGTCCCTTCAAAGAAGGAACCTACTCACTGC	16%	29%	26%	7%				
GNB1-NM_002074.5eU455-NP_002065.1aa31SF	2	2%	0%	2%	0%	0		0			400	180	640	320	350	CCAGGAAAGCATGTGCAGATGCAACTCTCTCTCAGA		2%	2%					
GOSR2-NM_001321134.2eU2066-3'UTR+1487	4	16%	8%	19%	5%	0		0			270	210	680	330	310	ATTAACTGAGTTTCCTGGATGCTAATTTCACACTTT	22%	23%	13%	6%				
GPCPD1-NM_019593.5eU206-NP_062539.1aa5Q*	4	23%	13%	26%	15%	1	12%	0			310	110	730	390	260	TAAAATAAATCCATCAGAATGACACCTTCTCAGGTT	15%	43%	20%	15%	12%			
GRB2-NM_002086.5eU474-NP_002077.1aa49PP	4	8%	4%	9%	3%	0		3	4%	1%	330	230	440	640	320	AGAGCTTAATGGAAAAGACGGCTTCATTCCCAAGAA	12%	6%	9%	3%		2%	4%	5%
GRWD1-NM_031485.4eU649-NP_113673.3aa209SF	2	2%	0%	2%	0%	0		0			310	210	650	390	370	ATGAGCAGGCCCAAATGAAGCCCATCTTCTCCTTCG		2%	1%					
GSDME-NM_001127453.2eU1986-3'UTR+407	4	14%	5%	16%	4%	0		0			270	380	790	290	280	CATTGTGAATGCTGTGGGAAGGCAATTTCTCTGCAC	12%	21%	14%	8%				
GSPT1-NM_001130006.2eU5329-3'UTR+3182	3	8%	0%	8%	0%	0		0			130	210	760	40	280	GATGTAGTTCAACAGTTGCCGGCATCCTCTCAGCTG		8%	8%	7%				
GSR-NM_000637.5eU2265-3'UTR+685	3	10%	1%	10%	1%	0		0			500	290	670	320	60	TAATTTTCACAGAAGTTGATGGCAATTCTTCACATG	11%	9%	9%					
GSTK1-NM_001143679.2eU948-3'UTR+26	3	2%	0%	2%	0%	0		0			400	220	630	490	0	TTTAAGATTGCCCGGAGGAAGCAAACTCTTCGTATA	2%	2%	2%					
GTF2F1-NM_002096.3eU1163-NP_002087.2aa332PS	3	3%	0%	3%	0%	0		0			150	390	710	270	250	GAGGAGGAGGAGGAGAAGAAGGCACCACCCCCGCAG	3%	3%	3%					
GTF3C4-NM_012204.4eU4155-3'UTR+1551	3	16%	1%	16%	1%	0		0			110	510	690	220	210	TACTTAGATGATACCATGACGGCAACCTCCCCACCC	17%	15%	15%					
GTF3C4-NM_012204.4eU4156-3'UTR+1552	4	12%	4%	13%	3%	0		0			400	110	510	690	220	ACTTAGATGATACCATGACGGCAACCTCCCCACCCC	12%	16%	11%	7%				
H2AX-NM_002105.3eU313-NP_002096.1aa81PL	4	3%	1%	4%	0%	0		0			250	370	460	470	370	CCCGCGACAACAAGAAGACGCGAATCATCCCCCGCC	4%	3%	4%	2%				
H2BC12-NM_080593.2eU586-3'UTR+145	3	4%	1%	4%	1%	0		0			480	590	440	400	230	AGAATGCAACCATACCTAGATGGACTTTTCCACAAG	4%	2%	5%					
HBEGF-NM_001945.3eU1342-3'UTR+440	4	14%	1%	15%	1%	0		0			230	130	840	180	330	AAAGCAACAAAGATTGAGAAGCCATGTACTCAAGTA	14%	15%	15%	13%				
HCG18-NR_024052.2eU2996-ncr	3	70%	21%	70%	21%	0		0			340	350	750	350	170	ACTGTATACTAACATCTGATGGCATTTTTCCACTGT	83%	80%	46%					
HDAC2-NM_001527.4eU838-NP_001518.3aa200HY	4	10%	3%	11%	1%	0		1	1%		230	290	690	260	210	ACAACAGATCGTGTAATGACGGTATCATTCCATAAA	11%	10%	12%	6%			1%	
HDAC3-NM_001355039.2eU636-NP_001341968.1aa193HY	4	2%	1%	3%	1%	0		3	33%	1%	370	340	610	260	240	CTCACTGACCGGGTCATGACGGTGTCCTTCCACAAA	4%	3%	2%	2%		32%	33%	33%
HEATR6-NM_022070.5eU1158-NP_071353.4aa384SL	4	6%	3%	7%	3%	0		3	40%	9%	320	90	770	330	290	GTGGAGCTGCAGAAAAAGATGGAGTCTCCTCATCCT	7%	4%	10%	4%		34%	37%	50%
HERC5-NM_016323.4eU682-NP_057407.2aa177PP	2	3%	1%	3%	1%	0		0			360	450	710	470	200	TGGGCAGCTTGGAGTTGGAAGGAAATTTCCCTCAAC	2%		3%					
HIBADH-NM_152740.4eU901-NP_689953.1aa269SL	2	3%	0%	3%	0%	0		3	36%	3%	260	200	600	300	340	CTGTACCTGGAGTGATGGATGGCGTTCCCTCGGCTA		3%	2%			39%	34%	34%

HIF1A-NM_001243084.2eU2903-3'UTR+211	3	2%	1%	2%	1%	3	11%	2%	0			310	130	690	260	550	T A A T G C T G G A T C A C A G A C A G C T C A T T T T C T C A G T T T	3%	1%	1%		12%	11%	9%											
HIF1A-NM_001243084.2eU718-NP_001230013.1aa193LL	2	2%	1%	2%	1%	0			1	2%		280	210	740	310	450	A G A A C A A A A C A C A C A G C G A A G C T T T T T C T C A G A A T	3%	2%								2%								
HIF1AN-NM_017902.3eU2893-3'UTR+1827	3	17%	8%	22%	0%	2	12%	1%	0			270	210	770	190	400	C A G T G T G G A T G T G A A G A T A T G G T A C C T T C T C A A G T G	22%	22%		8%	12%	11%											
HIP1R-NM_003959.3eU3279-NP_003950.1aa1062PL	4	35%	11%	40%	4%	0			3	17%	5%	170	160	810	360	210	A C C A G C T T G A C A A A A A G G A T G G C A T C T A C C C A G C T C	43%	43%	35%	20%						14%	14%	23%					
HLTF-NM_001318934.2eU3067-NP_001305863.1aa957TI	3	12%	3%	12%	3%	0			0			160	200	800	120	400	G A C T T G G T C A G A A G C A A G A A G T T A T C A T C A C A A A A T	9%	16%	10%															
HLTF-NM_001318934.2eU331-NP_001305863.1aa45PL	4	13%	6%	16%	2%	0			0			280	180	630	330	280	C A C G T T T T G A A T T C C A A G A T G T T A T C C C T C C A G A T G	18%	16%	14%	5%														
HMGB1-NM_001313892.2eU1143-3'UTR+314	2	1%	0%	1%	0%	0			3	40%	2%	380	230	470	540	330	A T T A G T T A T A T A T G G G G A T G G T A G T T T T T C A T C T T		1%	1%							41%	40%	38%					
HMGCS1-NM_001098272.3eU500-NP_001091742.1aa125TI	3	2%	1%	3%	1%	0			0			110	220	780	160	340	C T G G G A A T A C A G A T A T A G A A G G A A T C G A C A C A A C T A	3%	3%		1%														
HNRNPA0-NM_006805.4eU310-NP_006796.1aa5Q*	2	1%	0%	1%	0%	0			3	21%	2%	350	240	720	220	300	A A G G C C C G G G C C T T G G A G A T G G A G A A T T C T C A G T T G	1%	2%								19%	23%	21%					
HNRNPC-NM_001077442.2eU294-NP_001070910.1aa38SL	4	4%	2%	5%	1%	0			1	1%		430	180	710	470	150	T C A A G A A A T C T G A T G T G G A G G C A A T C T T T T C G A A G T	6%	6%	4%	2%						1%								
HNRNPC-NM_001077443.2eU294-NP_001070911.1aa38SL	4	4%	1%	4%	0%	0			0			430	180	710	470	150	T C A A G A A A T C T G A T G T G G A G G C A A T C T T T T C G A A G T	4%	5%	5%	3%														
HNRNPC-NM_004500.4eU320-NP_004491.2aa38SL	4	5%	2%	6%	1%	0			0			430	180	710	470	150	T C A A G A A A T C T G A T G T G G A G G C A A T C T T T T C G A A G T	7%	6%	5%	2%														
HNRNPC-XM_006720125.3eU690-5'UTR-212	4	31%	5%	33%	3%	0			2	5%	1%	260	290	770	310	350	T T A A C A C T T A T G A T C G T G A T G G C A T T T T C C C T G A A A	30%	34%	36%	24%						6%	4%						
HNRNPK-NM_001318186.2eU202-NP_001305115.1aa11PL	4	22%	9%	26%	3%	1	1%		3	2%	1%	340	270	760	370	300	T G G A A A C T G A A C A G C C A G A A G A A A C C T T C C C T A A C A	30%	25%	25%	10%		1%				2%	3%	2%						
HNRNPK-NM_002140.5eU252-NP_002131.2aa11PL	4	23%	9%	27%	3%	1	1%		3	2%	0%	340	270	760	370	300	T G G A A A C T G A A C A G C C A G A A G A A A C C T T C C C T A A C A	30%	27%	25%	10%		1%				1%	2%	2%						
HNRNPK-XM_005251960.2eU237-XP_005252017.1aa11PL	4	23%	8%	27%	3%	0			0			340	270	760	370	300	T G G A A A C T G A A C A G C C A G A A G A A A C C T T C C C T A A C A	27%	23%	29%	11%														
HNRNPK-XM_005251963.4eU267-XP_005252020.1aa11PL	2	21%	7%	21%	7%	0			0			340	270	760	370	300	T G G A A A C T G A A C A G C C A G A A G A A A C C T T C C C T A A C A		17%	26%															
HNRNPLL-NM_001142650.2eU1458-NP_001136122.1aa466TI	4	26%	9%	31%	2%	0			1	2%		390	240	810	190	390	T T C C A T T G T G T G T C A C A G A A G A G A C C T T C A C A A A G T	33%	31%	29%	12%								2%					
HOMER1-NM_001277077.1eU2452-3'UTR+715	2	20%	4%	20%	4%	0			0			360	310	740	150	570	A T T C C A T G T A T T T A T G A G A A G A T A T T G T C T C C C A T T		17%	23%															
HOXB2-NM_002145.4eU1085-NP_002136.1aa296SL	3	3%	0%	3%	0%	0			3	41%	7%	310	150	820	140	370	A G C C C G G G C C A T T G C C A G A A G A C G T C T T C T C G G G G C	3%	3%	3%							34%	40%	48%					
HP1BP3-NM_001372052.1eU682-NP_001358981.1aa157PS	4	3%	1%	4%	1%	0			1	4%		170	380	740	300	250	G C C C A G A A A C A A A C A C C G A T G G C T T C T T C C C C A C G T	5%	4%	3%	2%								4%					
HPF1-NM_017867.3eU169-NP_060337.2aa34SS	2	3%	1%	2%		0			0			460	210	440	560	190	G A A A A G T A A A T T C T G T G A A G C T G A T G T C T C C A G T G A			2%	3%														
HRH1-NM_000861.3eU1023-NP_000852.1aa278Q*	2	7%	5%	7%	5%	0			0			200	270	740	230	140	G G T G G T G G A T C T G T C T T G A A G T C A C C A T C C C A A A C C		10%	3%															
HSBP1-NM_001537.4eU515-3'UTR+185	4	6%	3%	7%	1%	0			0			170	160	790	180	400	C C C C C C A G T T T C T T G A A C A T G G T A T C T T C A C A T C T T	8%	7%	6%	2%														
HSDL1-NM_001146051.2eU2775-3'UTR+1781	3	7%	3%	7%	3%	0			0			370	150	720	260	140	C A C A C C T T G T C A G T G A T G A T G T A A A C T T C T C T C C T T	11%	5%	7%															
HSP90AA1-NM_001017963.3eU3402-3'UTR+492	4	7%	2%	8%	1%	1	0%		2	0%	0%	570	460	570	310	160	A A C T G A A G C A A C T T G A T G G A A G G A T C T C T C C A C A G G	8%	8%	7%	5%	0%					0%	0%						
HSP90AA1-XM_011536718.2eU3399-3'UTR+492	2	11%	7%	11%	7%	0			0			570	460	570	310	160	A A C T G A A G C A A C T T G A T G G A A G G A T C T C T C C A C A G G		16%	6%															
HSPA13-NM_006948.5eU3529-3'UTR+2086	3	10%	4%	10%	4%	0			0			350	280	730	370	110	T A C A C C T T T A A T A A A A T G A A G G A A T G T C T T C A A T C A	10%	15%	6%															
HSPA1A-NM_005345.6eU1500-NP_005336.3aa429TI	4	3%	1%	3%	0%	0			0			340	300	490	350	460	C C A T C C C C A C C A A G C A G A C G C A G A T C T T C A C C A C C T	3%	3%	3%	2%														
HTT-NM_001388492.1eU9111-NP_001375421.1aa2989PL	2	4%	2%	4%	2%	0			1	6%		310	140	790	300	370	T C C T G C C C C A G T T T C T A G A C G A C T T C T T C C C A C C C C		3%	6%									6%						
HVCN1-NM_001040107.2eU1015-3'UTR+38	2	20%	2%	19%		0			0			250	210	770	240	400	C C A G C T C C C C T C A A A A A G A A G A C A C T G T C T C A T G G G		19%		21%														
HYPK-NM_016400.4eU403-3'UTR+13	2	5%	2%	5%	2%	0			3	64%	4%	400	310	430	430	380	A T T G C C C T A A C C A A C T G A T G C G T G C T T T C T C A A A T A	4%		6%							68%	63%	61%					
IARS2-NM_018060.4eU1353-NP_060530.3aa423TI	3	4%	1%	4%	1%	0			3	43%	7%	260	220	740	330	400	A T T G T C T A G T G G A C G A A G A T G G A G T T T T C A C A G A T G	3%	5%	4%							38%	50%	40%					
ICAM1-NM_000201.3eU1353-NP_000192.2aa438PL	3	11%	5%	13%	3%	0			1	8%		310	290	760	480	240	A G C T C A A G T G T C T A A A G G A T G G C A C T T T C C C A C T G C		11%	15%	6%								8%						
IFI16-NM_001206567.2eU707-NP_001193496.1aa144LL	3	16%	4%	16%	4%	0			0			320	300	810	220	370	A T G T C A G G T A A C T C C C A G A A G A A A A T G T C T C C A A A A	13%	20%	14%															
IFI16-NM_001364867.2eU1199-NP_001351796.1aa200LL	4	12%	4%	14%	1%	0			0			320	300	810	220	370	A T G T C A G G T A A C T C C C A G A A G A A A T G T C T C C A A A A	14%	13%	13%	6%														
IFT52-NM_001303458.3eU1181-NP_001290387.1aa361SF	2	2%	0%	2%	0%	0			0			310	170	710	270	300	T G G A G C T A T T T G A T T T A G A T G A A A C G T T C T C C T C T G		1%	2%															
IKBIP-NM_201612.4eU964-NP_963906.1aa293RC	3	6%	1%	6%	1%	0			0			170	410	730	430	440	A A G G T G T A T A A T C T A A A G A A G G A C T T T C C C G T T T A	5%	7%	5%															
IL13RA1-NM_001560.3eU2783-3'UTR+1466	3	8%	5%	8%	5%	0			0			180	240	740	100	570	T T T C T A A A C A G A G A T G A G G T G G T A T C T T C A C G T A G A	5%	14%	5%															
IL6ST-NM_001190981.2eU2166-NP_001177910.1aa628TI	4	12%	3%	13%	3%	0			0			260	300	750	210	330	A A G A T C A A A T G T A T T C A G A T G G C A A T T T C A C T G A T G	12%	17%	12%	9%														
ILK-NM_001014794.3eU112-NP_001014794.1aa6TI	4	19%	8%	23%	3%	0			2	3%	0%	400	130	730	290	440	G C C G G G A C G C T G C T A T G G A C G A C A T T T T C A C T C A G T	21%	27%	22%	7%						3%	2%						
ILK-NM_001014795.3eU515-NP_001014795.1aa6TI	4	21%	7%	24%	5%	0			0			400	130	730	290	440	G C C G G G A C G C T G C T A T G G A C G A C A T T T T C A C T C A G T	24%	30%	19%	13%														
ILK-NM_001278441.2eU158-NP_001265370.1aa6TI	4	25%	10%	29%	7%	0			2	5%	0%	400	130	730	290	440	G C C G G G A C G C T G C T A T G G A C G A C A T T T T C A C T C A G T	37%	28%	23%	13%						5%		5%					
ILK-XM_005252904.5eU184-XP_005252961.1aa6TI	4	21%	7%	23%	7%	0			0			400	130	730	290	440	G C C G G G A C G C T G C T A T G G A C G A C A T T T T C A C T C A G T	30%	24%	16%	15%														
IPO7-NM_006391.3eU1179-NP_006382.1aa356PL	4	27%	10%	31%	2%	0			1	3%		240	260	710	390	310	T A C A A G G C A T T A T C C A A G A T G T T A T T T T C C A T T G A	33%	30%	31%	12%								3%					
IRAK1-NM_001025242.2eU2185-3'UTR+46	2	2%	1%	2%	1%	0			0			310	190	550	470	300	A G A T C C C C C A A A T C C G G A A G T C A A A G T C T C A T G G T	1%	2%																
IRAK2-NM_001570.4eU546-NP_001561.3aa170PP	4	19%	9%	22%	9%	0			1	6%		450	190	750	400	260	T G C C C C T C A T T C C T T G A G A A G C G A C C T C C C C A C T T C	30%	13%	23%	10%						6%								
ITFG1-NM_001305002.2eU658-NP_001291931.1aa132SF	4	12%	6%	14%	5%	0			0			270	240	760	300	140	A A A T A T G G G A A A A T T G G A T G G A A A C T T C T C T G T C A	20%	10%	12%	6%														
ITFG1-NM_030790.5eU213-NP_110417.2aa65FF	4	4%	2%	4%	2%	0			0			400	390	480	250	360	C C T C A A C T C C G A C A A G C A G A C G G A T C T C T T C G T G C T	4%	6%	3%	2%														
ITGB1BP1-NM_001319070.2eU167-5'UTR-26	3	4%	2%	4%	2%	0			0			440	200	820	230	330	G A T G G G C C C G C G G C T G C G A G G G G A T C T C T C T G G A T	4%	2%	6%															
ITGB1BP1-NM_004763.5eU167-5'UTR-26	3	4%	1%	4%	1%	0			0			440	200	820	230	330	G A T G G G C C C G C G G C T G C G A G G G G A T C T C T C T G G A T	5%	3%	4%															
JMJD1C-NM_001282948.2eU4504-NP_001269877.1aa1237SF	3	6%	3%	6%	3%	0			0			320	140	750	360	310	C C A G C T G G G G T G G T T C A G A A G T A A T T C C T C T T T A T	4%	10%	5%															
JMJD1C-NM_001282948.2eU7324-NP_001269877.1aa2177SL	3	5%	1%	5%	1%	1	2%		0			220	360	750	230	540	T T G G C A T A G C A A A A G G A A A T G G C A T T C T C T C A A A A G	4%	6%	5%		2%													
JPT2-NM_144570.3eU144-NP_653171.1aa37SF	2	2%	0%	2%	0%	0			0			330	400	550	390	270	T T T T T G G A A G T C C A G A A G A A G C T A C T C C T T C C A G C A		2%	2%															
KAT7-NM_001199155.2eU3107-3'UTR+1207	3	5%	2%	5%	2%	0			0			440	260	730	360	330	G T G T T G T T C A A G T G A A G G A A G A G A T G T C C C T C T A A	8%	5%	3%															
KATNA1-NM_007044.4eU614-NP_008975.1aa119Q*	2	7%	1%	7%	1%	0			0			270	110	620	390	450	T C A C C A G G A C C T A G A A A A C G C C A A T C T T C T C A G T A C	8%	7%																
KCTD10-NM_001317395.2eU2274-3'UTR+1291	4	4%	2%	5%	2%	0			3	24%	4%	320	360	650	60	420	G G C G C A G C G C C T A T G T A G G A C G G G T G T T C T C A G T G A	3%	4%	7%	3%						28%	24%	20%					
KDM1B-NM_001364614.2eU462-NP_001351543.1aa85LL	3	11%	1%	11%	1%	0			0			310	160	750	80	270	A A A T G G C T A C A C C T C C C G A T G G T A T C A T C T C T C C T G	10%	11%	12%															
KIDINS220-NM_001348729.2eU3980-NP_001335658.1aa1270FF	2	2%	0%	2%	0%	0			0			350	260	620	390	80	G A A T A T G A A T T T G G A G A C T G G C A C C T T T T C A G A A G		3%	2%															
KIF1B-NM_001365953.1eU3475-NP_001352882.1aa1054LL	2	2%	0%	2%	0%	0			0			170	310	790	270	500	A C C T C A A C T A C G T T G G A G A A G C A A T T C T C T C A A T A A		2%	2%															
KIF20B-NM_001284259.2eU480-NP_001271188.1aa130Q*	2	12%	8%	12%	8%	0			0			240	410	760	270	360	G G C C C C A G C A A C T A C A C A G A A G G A A T T C T T T C A G G G T		7%	18%															
KIF2A-NM_001098511.3eU449-NP_001091981.1aa61SL	2	7%	3%	7%	3%	3	54%	6%	0			560	260	750	310	150	G C A A A G A G A T T G A C C T G G A G A G C A T C T T T T C A C T T A		4%	9%		50%	61%	51%											
KIF5B-NM_004521.3eU2127-NP_004512.1aa559LL	3	5%	2%	5%	2%	0			0			330	270	750	220	160	A A A C G A G C A G C T G A G A T G A T G G C A T C T T T A C T A A A A	7%	4%	5%															
KIF5B-NM_004521.3eU5771-3'UTR+2427	3	8%	2%	8%	2%	0			0			380	200	720	190	330	G T T T A T T T T C A G T G C T T G A A G A T A C A T T C A C A A A T A	10%	7%	8%															
KIFAP3-NM_001204514.2eU2537-NP_001191443.1aa637LL	2	15%	8%	15%	8%	0			0			570	200	650	390	410	T G A G C C A T A C A T T C A T G A A G G A G A T A T T C T C G A A A G	21%	9%																
KIZ-NM_001163022.3eU562-NP_001156494.1aa128Q*	3	15%	3%	13%	2%	0			0			400	270	740	410	190	T C T G A C A A C A T A G A T G G A A A G G C A T C T C T T C A G A T T		15%	12%	17%															
KLC1-NM_001130107.2eU773-NP_001123579.1aa163PL	3	5%	1%	5%	1%	0			0			260	130	720	420	310	A G C T A A A A A A A T A T G A T G A C G A C A T T T C C C C A T C C G	6%	5%	4%															
KLHDC3-NM_057161.4eU306-NP_476502.1aa49FF	4	5%	2%	6%	1%	0			0			460	310	480	440	120	G A C A C T G C G T C A G A T A G A T G T G C A C A T T T T C A A T G C	7%	5%	7%	2%														
KLHL9-NM_018847.4eU736-NP_061335.1aa64PL	2	9%	4%	12%		0			0			250	140	780	320	450	T G G T A C C A G G T G A T G G A G A T G A A A T C T T C C C T G T T C			12%	6%															
KMT2B-NM_014727.3eU5696-NP_055542.1aa1894LL	3	2%	0%	2%	0%	0			0			340	110	610	390	420	C C C C T G C C C T C C C C T G G A A G T C C A T C T T C A C T G A C C	2%	2%	2%															
KNSTRN-NM_001142761.1eU484-NP_001136233.1aa123SS	2	2%	0%	2%	0%	0			0			460	330	500	570	230	A C C T G T T A G G T C C A A A G A A G T C G A T G T T T C C A A A C A		2%	2%															
KPNA2-NM_001320611.2eU1143-NP_001307540.1aa175HY	4	2%	1%	3%	1%	0			0			180	160	730	270	170	C C A G C A T T C A T T T C T C T G T T G G C A T C T C C C C A T G C T	3%	1%	4%	1%														
KPNB1-NM_001276453.2eU1307-NP_001263382.1aa220PL	4	4%	2%	4%	1%	0			0			300	200	750	290	430	T G G C C A C C T G C T G T G G A A G A T G A C A T T G T C C C A C A T G	5%	5%	3%	2%														
KRT10-AS1-NR_160886.1eU332-ncr	4	12%	5%	14%	3%	0			0			170	280	720	220	320	G G G A G A G A G T T G A A A T G G T T G G C A T C C T C C C A C T C T	11%	18%	14%	5%														
KRT10-AS1-NR_160888.1eU301-ncr	3	12%	4%	12%	4%	0			0			170	280	720	220	320	G G G A G A G A G T T G A A A T G G T T G G C A T C C T C C C A C T C T	15%	14%	8%															
KYAT3-NM_001008661.3eU1115-NP_001008661.1aa357LF	3	6%	2%	6%	2%	0			0			320	220	600	310	150	G A A G T A A A A A G A G A T C G G A T G G T A C G T T A C T T G A A	4%	6%	8%															
LEO1-NM_001286430.2eU1001-NP_001273359.1aa323SL	4	11%	6%	12%	6%	0			0			390	60	740	250	290	A T T T A T T T G G A G G T G C A G A T G A T A T C T C T T C A G G G A	16%	5%	15%	5%														
LIMA1-NM_001113546.2eU137-NP_001107018.1aa5PS	3	21%	4%	21%	4%	0			1	6%		170	310	790	200	290	T C A G T G T C T G T A G A C A A G A T G G A A T C A T C T C C A T T T	23%	17%	24%									6%					
LIN54-NM_001115007.3eU1512-NP_001108479.1aa444Q*	4	33%	15%	39%	11%	0			2	8%	5%	220	250	800	120	340	C A A A C A G C A G C C C A A G A C G A A G T T A T C C T C T C A A A T T	52%	35%	31%	14%						4%		12%					
LINC00641-NR_038970.1eU4413-ncr	2	7%	5%	7%	5%	0			0			210	230	720	260	290	T G A G G G A T G C C C C C A A G G A A G T T A A C T T C A C T G C A A	3%	10%																
LINC02987-NR_110687.1eU1517-ncr	4	51%	17%	59%	12%	0			3	89%	10%	260	220	680	380	490	T T T G T C T T T T T A G T A G A G A C G G T G T T T C C C C A T G T T	72%	52%	52%	30%						100%	87%	81%					

LINS1-NR_148019.2eU1555-ncr	3	11%	2%	12%	1%	0			0			410	260	530	370	340	CAGTCCTGGTGCAACAGATGGAGATCCTTTCAGGGA		13%	12%	9%						
LPCAT1-NM_024830.5eU1282-NP_079106.3aa389SL	4	19%	12%	22%	11%	0			0			440	210	790	260	190	CCGTTTCTGACTTGCTGGAAGACATGTTTTCACTGT	11%	22%	34%	8%						
LPCAT3-NM_005768.6eU823-NP_005759.4aa257LL	4	24%	11%	30%	2%	2	4%	1%	3	5%	1%	540	80	600	500	310	CAGCCCCCACATCACAGAAGACTATCTCCTCACTGA	27%	31%	31%	8%		5%	4%	4%	5%	6%
LPP-NM_001167671.3eU6485-3'UTR+4333	2	24%	5%	24%	5%	0			0			300	290	820	180	240	AAGAAAAAGAAAGAGAGAGAAGTCAACTTTTCATCTT		27%	20%							
LRIF1-NM_001006945.2eU1130-3'UTR+114	2	2%	1%	2%	1%	0			3	39%	13%	420	230	460	460	390	AAGTGTCTTTGAATATGAAGCTTGTTTTTTCATCAG	1%	2%						33%	32%	54%
LRIF1-NM_001006945.2eU895-NP_001006946.1aa194PL	4	46%	16%	54%	5%	3	2%	0%	3	5%	2%	210	280	780	310	450	TCAATAAAAATTATACCGAAGATATTTTCCCAGTGA	59%	50%	51%	23%	2%	2%	3%	5%	3%	7%
LRRC37A2-NM_001006607.2eU4244-NP_001006608.2aa1414SF	2	11%	6%	11%	6%	0			0			300	240	770	210	220	AAAACACTAACATGCCAGAAGGAACCATCTCTGAAA		15%	6%							
LSG1-NM_018385.3eU116-NP_060855.2aa29HH	2	5%	1%	5%	1%	0			0			210	150	800	120	260	TCAGACTCAGCGGAGCCGAAGCCATCGTCACACTGA	6%		4%							
LSM14B-NM_144703.3eU1898-3'UTR+548	3	7%	3%	9%	0%	0			3	51%	6%	300	410	740	390	310	GGTGGGTGGAGGGCACGGAAGGGGTTTTCCCATGGA		9%	9%	4%				57%	46%	48%
LUZP6-NM_001128619.3eU377-5'UTR-2716	4	1%	1%	2%	1%	0			0			510	100	560	630	240	CGGACACTAGAAGGTGGAAGGAAACCTCTTCATTAT	1%	1%	2%	1%						
LY6E-NM_001127213.2eU106-5'UTR-6	4	4%	2%	5%	1%	0			1	2%		210	310	590	330	480	TGTGACCTCCAGGCAGGACGGCCATCCTCTCCAGAA	6%	4%	4%	1%						2%
LY6E-NM_002346.3eU111-5'UTR-6	4	4%	2%	5%	1%	0			2	1%	0%	210	310	590	330	480	TGTGACCTCCAGGCAGGACGGCCATCCTCTCCAGAA	6%	3%	4%	2%				1%		2%
LYRM1-NM_001128301.3eU920-3'UTR+200	3	6%	1%	6%	1%	0			0			150	340	700	330	270	ATCTTTCTTCCTGAGTGGATGGCATTATCCCTAGAG	6%	7%	5%							
M6PR-NM_001207024.2eU881-3'UTR+146	4	3%	1%	3%	1%	3	8%	2%	0			290	200	660	220	250	TTTCCAGTTTGCTTTTGATTTGCATCTTCTCACTAG	4%	4%	3%	1%	7%	10%	7%			
MACROH2A1-NM_001040158.1eU281-NP_001035248.1aa24PL	3	2%	1%	2%	1%	0			0			200	460	710	240	280	CCAGGTCTGCCAAAGCAGGAGTCATCTTTCCCGTGG	2%	1%	3%							
MACROH2A1-NM_001040158.1eU596-NP_001035248.1aa129TI	4	7%	3%	8%	2%	0			0			210	150	800	200	260	GATCCAAAGGAAAGTTGGAAGCCATCATCACACCAC	11%	7%	7%	4%						
MACROH2A1-NM_138609.3eU589-NP_613075.1aa129TI	3	8%	2%	9%	2%	0			0			210	150	800	200	260	GATCCAAAGGAAAGTTGGAAGCCATCATCACACCAC		7%	10%	7%						
MACROH2A1-NM_138610.3eU589-NP_613258.2aa129TI	2	9%	2%	9%	2%	0			0			210	150	800	200	260	GATCCAAAGGAAAGTTGGAAGCCATCATCACACCAC		10%	8%							
MAF1-NM_032272.5eU483-NP_115648.2aa14SL	4	3%	1%	4%	1%	0			0			320	80	780	120	170	TGGAGAACTCGAGCTTTGAAGCCATCAACTCACAGC	5%	3%	4%	1%						
MAML1-NM_014757.5eU1201-NP_055572.1aa304PS	4	50%	13%	57%	4%	0			3	14%	2%	170	420	740	270	420	CAGGACATTAATATTAAGACGGAATTCTCTCCAGCA	60%	54%	55%	31%				14%	12%	17%
MANF-NM_006010.6eU207-NP_006001.5aa52SL	4	29%	8%	33%	3%	0			3	3%	0%	450	70	800	190	340	AGGACCTCAAAGACAGAGATGTCACATTCTCACCAG	37%	31%	32%	17%				2%	3%	3%
MAP1B-NM_001324255.2eU4415-NP_001311184.1aa1401SL	2	14%	5%	14%	5%	0			0			260	300	730	200	260	CTAAGATGTCCATTTCTGAAGGTACTGTCTCAGACA		17%	11%							
MAP3K13-NR_038322.2eU1239-ncr	4	27%	12%	30%	13%	0			3	5%	1%	270	190	730	300	300	GTCCTGTTACACAGTTGGAAGTCATTCCCTCAGATT	43%	30%	18%	16%				5%	5%	6%
MAP3K20-NM_133646.3eU6882-3'UTR+5323	3	18%	1%	17%	0%	0			0			150	220	740	150	440	AGTGTGAGCTTTGAATAGATGGCATTATCACTTTAT	17%	17%		19%						
MAP3K2-NM_001371910.2eU4761-3'UTR+2312	3	16%	3%	16%	3%	0			0			420	270	790	310	190	CTTTATCTTTTATGAATGAGGGCATCTTTTCTACTT	14%	15%	20%							
MAP4K2-NM_001307990.2eU1573-NP_001294919.1aa503TI	3	18%	4%	18%	4%	0			1	13%		270	170	850	260	220	TGGTGGTAGGGGCCGAGGAAGGCATCTACACACTCA	21%	14%	18%							13%
MAP4K5-NM_006575.6eU1451-NP_006566.2aa407PL	2	2%	0%	2%	0%	0			0			330	360	690	280	120	GGATAAGCAGTTACCCTGAAGACAACTTTCCGGATG		2%	2%							
MAP4K5-NM_006575.6eU1835-NP_006566.2aa535TI	4	16%	4%	18%	2%	0			0			270	150	760	250	420	TTATTTTTGGAACTGAAGATGGTATTTACACACTGA	17%	17%	20%	10%						
MAP4K5-XM_011536377.3eU1833-XP_011534679.1aa535TI	4	17%	5%	15%	4%	0			0			270	150	760	250	420	TTATTTTTGGAACTGAAGATGGTATTTACACACTGA	20%	13%	12%	24%						
MAPK7-NM_002749.4eU1553-NP_002740.2aa472SL	2	4%	0%	4%	0%	0			3	22%	6%	300	160	700	170	320	CTGCCCCACCAAAGAAAGATGGTGCCATCTCAGACA	4%		3%					15%	28%	22%
MAPRE2-NM_001143826.3eU2312-3'UTR+1335	3	12%	3%	12%	3%	0			1	4%		290	300	660	190	320	TATTTTTTCCTTTGACAGATGGTATCCCTTCCTGGA	16%	10%	10%							4%
MARF1-NM_001184998.2eU6995-3'UTR+1571	3	10%	1%	10%	1%	0			0			320	280	790	280	230	ACTCTCCGAATCCTCCTGAAGGCATTTCCTCTACAG	9%	11%	11%							
MARK3-NM_001128918.3eU1970-NP_001122390.2aa452SF	2	3%	0%	3%	0%	0			0			380	250	750	400	310	ATAGTGACCTCAAAGAAGATGGAATTTCCTCCCGGA	3%		2%							
MBD4-NM_001276270.2eU1311-NP_001263199.1aa399PL	2	5%	1%	5%	1%	0			0			290	220	700	230	320	CCAGGAAAGACTTCACTGAAGATACCATCCCACGAA	5%	5%								
MBD4-NM_001276271.2eU1329-NP_001263200.1aa405PL	2	8%	3%	8%	3%	0			0			290	220	740	270	360	GTGAGAAAATATTTCAAGAAGATACCATCCCACGAA		6%	10%							
MBIP-NM_001144891.2eU918-NP_001138363.1aa290PL	4	47%	6%	48%	6%	1	9%		2	25%	2%	380	300	730	430	70	ATAAAATCCTTGAATTGGAAGGCATCTCTCCTGAAT	56%	45%	45%	43%			9%		26%	23%
MBIP-NM_016586.3eU918-NP_057670.2aa290PL	4	52%	11%	56%	10%	2	7%	1%	3	21%	5%	380	300	730	430	70	ATAAAATCCTTGAATTGGAAGGCATCTCTCCTGAAT	67%	52%	49%	40%	6%		7%	15%	22%	25%
MBIP-XR_001750370.2eU957-ncr	3	54%	12%	54%	12%	0			0			380	300	730	430	70	ATAAAATCCTTGAATTGGAAGGCATCTCTCCTGAAT	67%	44%	50%							
MCL1-NM_001197320.2eU2469-3'UTR+1795	3	4%	1%	4%	1%	1	2%		0			260	310	640	300	290	AAGTCCCTTTTCCTTGGACTGGTATCTTTTCAACTA	4%	4%	5%				2%			
MCM6-NM_005915.6eU1809-NP_005906.2aa577LL	4	24%	9%	28%	3%	0			3	3%	1%	310	150	860	140	430	TTCCCTCGATGATATCAGAAGATATCTTCTCTTTGC	30%	25%	30%	10%				3%	4%	3%
ME1-NM_002395.6eU319-NP_002386.1aa74LL	3	11%	3%	11%	3%	3	11%	5%	0			280	280	700	260	310	TCTGAACTCTGACTTTGACAGGTATCTTCTCTTAAT	13%	7%	12%		9%	17%	7%			
MED18-NM_001127350.2eU329-NP_001120822.1aa60LF	4	9%	3%	10%	2%	0			0			320	330	570	360	420	ACTTTCCTTGACCATGAGATGGTATTCCTCCTTAAG	9%	13%	10%	6%						
MED4-NM_001270629.2eU354-NP_001257558.1aa99SF	3	3%	1%	3%	1%	0			0			330	80	680	250	440	TAGAAAAAGCAAGAAAAGGTGCTATCTCCTCTGAAG	4%	4%	2%							
METTL16-NM_024086.4eU520-NP_076991.3aa130LL	4	9%	4%	9%	5%	0			0			390	150	630	320	330	TGGAGCAACCTTGAATGGCTGGTATTTCCTCGCAAC	5%	15%	7%	8%						
METTL3-NM_019852.5eU1841-NP_062826.2aa575SF	4	18%	12%	22%	12%	0			0			260	210	790	80	350	TCAAGCAAAGGTACCCAGATGGTATCATCTCTAAAC	29%	8%	29%	8%						
MGAT5-NM_001371457.1eU533-NP_001358386.1aa12Q*	2	18%	9%	18%	9%	0			3	36%	8%	260	200	720	160	340	GCTCTCTTCACTCCGTGGAAGTTGTCCTCTCAGAAG		11%	24%					43%	27%	38%
MGC70870-NR_003682.1eU72-ncr	2	25%	8%	25%	8%	0			0			410	340	770	280	180	CCAGAACCAATTTCATTGAAGCGAACTTCCCACATC	31%		20%							
MGST3-NM_004528.4eU277-NP_004519.1aa70PP	3	3%	1%	3%	1%	1	2%		0			230	320	540	390	500	CCACCAGAACACGTTGGAAGTGTATCCTCCCTTCTT	4%	4%	2%			2%				
MGST3-NM_004528.4eU81-NP_004519.1aa5SF	4	4%	2%	5%	1%	0			3	33%	3%	340	210	470	370	460	GGTGATCCAGACGCAAGATGGCTGTCCTCTCTAAGG	6%	4%	5%	2%				37%	32%	31%
MICA-NM_000247.3eU82-NP_000238.1aa15PL	4	12%	4%	14%	1%	0			2	4%	0%	170	230	740	280	210	CGGTCTTCCTGCTTCTGGCTGGCATCTTCCCTTTTG	14%	14%	15%	6%				4%		4%
MIER1-NM_001077700.3eU3801-3'UTR+2064	4	6%	3%	7%	2%	0			0			170	230	770	250	480	ATTGTTGCAGTGTTGGAGATGCCATTTTCACCTTTT	8%	5%	8%	3%						
MIR100HG-NR_024430.2eU648-ncr	4	29%	14%	34%	12%	0			0			400	80	740	260	180	AAAGAAAGTGATCACCTGAAGACACCTCCTCTGCTA	20%	38%	43%	14%						
MKNK1-NM_001135553.4eU231-5'UTR-25	4	69%	22%	80%	6%	3	59%	8%	3	69%	2%	280	210	910	140	390	GGGATTTCAAGTTTACAGATGGTATCTTCTCAAAAG	87%	76%	77%	36%	50%	65%	61%	71%	67%	70%
MKNK1-NM_001377341.1eU189-5'UTR-108	2	58%	12%	58%	12%	1	80%		1	42%		280	210	910	140	390	GGGATTTCAAGTTTACAGATGGTATCTTCTCAAAAG	50%	67%					80%	42%		
MKNK1-NM_001377343.1eU189-5'UTR-56	4	63%	20%	72%	8%	3	63%	20%	3	67%	8%	280	210	910	140	390	GGGATTTCAAGTTTACAGATGGTATCTTCTCAAAAG	64%	78%	75%	35%	78%	40%	70%	67%	75%	60%
MLXIP-NM_014938.6eU4598-3'UTR+1740	2	8%	3%	8%	3%	0			0			160	420	790	290	270	GACCCGGGGATGAGCATGAAGGCATTGTCCCAAAGG		9%	6%							
MMD-NM_012329.3eU745-NP_036461.2aa202PL	2	5%	1%	5%	1%	0			0			180	290	730	220	230	TTGTGTTCTTCAAGAGTGATGGCATCATTCCATTTG		6%	5%							
MOB1A-NM_001317110.2eU3652-3'UTR+2799	4	41%	13%	47%	4%	3	1%	0%	3	9%	1%	470	80	840	250	250	TTCCCCCTTGCTAATCAGAAGCCATCTCCTCTCAGT	52%	44%	45%	21%	2%	1%	2%	7%	9%	10%
MOB1A-NM_001317110.2eU815-NP_001304039.1aa204Q*	4	4%	1%	4%	1%	0			0			350	200	680	260	160	CTGATTGATAGGCGTGAGCTGGCACCTCTTCAAGAA	4%	4%	6%	2%						
MOCOS-NM_017947.4eU1005-NP_060417.4aa321SL	2	5%	1%	5%	1%	0			0			210	160	820	170	220	TAGCTCAGAGGTTTGAAGATGGCACCATCTCATTCC		6%	5%							
MOCS3-NM_014484.5eU1398-NP_055299.1aa458PL	2	10%	5%	10%	5%	0			0			510	290	650	410	80	CCTGGGCTGCCAAAATCGATGGAACATTTCCACAGT	6%	13%								
MON2-NM_001278469.3eU3602-NP_001265398.1aa1074HY	2	7%	1%	7%	1%	0			1	6%		280	410	660	320	230	TGGCACACTGTTATCTGGAAGGTACTCTTTCATCTA		8%	6%							6%
MPHOSPH8-NM_017520.4eU539-NP_059990.2aa150PL	4	16%	8%	20%	7%	0			0			350	260	700	470	420	AGCAAAGTGAGACAAAAGAAGATACTTCCCCAAAGA	14%	28%	17%	7%						
MR1-NM_001194999.2eU1428-3'UTR+338	2	14%	4%	14%	4%	0			0			300	350	840	380	110	GGAGATTCTCAGAGCAGGAAGGAATCTTTTCAACCA	17%		11%							
MRFAP1L1-NM_203462.3eU714-3'UTR+94	2	2%	1%	2%	1%	0			0			230	130	610	290	270	TGAGGAAACTGAAACAGCTTGTCATTTTCTCTGTTT		3%	2%							
MRPL20-NM_001318485.2eU849-3'UTR+464	4	14%	7%	17%	5%	0			0			300	510	780	250	170	GGGATGGGAAGGAACCTGAAGGCATTTTTTCCAGAG	17%	22%	12%	6%						
MRPL20-NM_017971.4eU504-NP_060441.2aa143SF	4	19%	5%	21%	3%	0			0			300	510	780	250	170	GGGATGGGAAGGAACCTGAAGGCATTTTTTCCAGAG	24%	18%	21%	12%						
MRPL24-NM_024540.4eU596-NP_078816.2aa167PL	4	8%	3%	9%	1%	0			0			200	230	750	180	210	CCGAATTTCCCAGAGCTGATGGCATCGTCCCTGAAA	10%	8%	8%	4%						
MRPL37-NM_001330602.1eU1377-NP_001317531.1aa434LF	3	11%	2%	11%	2%	0			0			430	180	520	540	360	CAAATATTTAAAGTGAGATGGATACCTTCCCTCCCA	11%	9%	13%							
MSH3-NM_002439.5eU2886-NP_002430.3aa937TI	4	16%	6%	19%	2%	0			0			170	270	820	290	320	CGACAATTGGGATTGTGGATGGCATTTTCACAAGGA	19%	17%	21%	7%						
MSH5-NM_002441.5eU2127-NP_002432.1aa633TI	2	5%	0%	5%	0%	0			0			270	70	870	180	340	CCGAAATTGGGGCAGTAGACGCCATCTTCACACGAA		5%	6%							
MSI2-NM_001322250.2eU647-NP_001309179.1aa171PL	4	26%	11%	28%	12%	0			2	6%	1%	270	220	860	280	330	AGAAAGCTCAGCCGAAAGAAGTCATGTTCCCACCTG	15%	29%	39%	20%				5%	6%	
MSI2-NM_001322251.2eU798-NP_001309180.1aa193PL	3	43%	3%	43%	3%	0			0			270	220	860	280	330	AGAAAGCTCAGCCGAAAGAAGTCATGTTCCCACCTG	45%	40%	43%							
MSL3-NM_001193270.2eU1589-NP_001180199.1aa488PL	2	3%	2%	3%	2%	0			0			260	140	750	340	290	TTTTAGCAGAATACCACGATGACTTCTTCCCAGAGT		2%	4%							
MSL3P1-NR_024322.1eU1845-ncr	2	22%	1%	22%	1%	0			3	17%	9%	310	160	680	250	200	AGCTATAATTTGCTTCTGACGGTTCCTTCTCTGTGA	22%	21%						10%	27%	15%
MTF2-NM_001164391.2eU2879-3'UTR+933	3	6%	1%	6%	1%	0			0			340	260	730	310	120	AACATTATCTCCTACTAGAAGTAACGTTTTCAAGTT	7%	6%	4%							
MTMR6-NM_001385230.1eU2004-NP_001372159.1aa588TI	4	27%	12%	32%	7%	0			0			160	360	790	80	450	GCAAAAATAAGCAAACAGATGGCATCCTCACCAAGG	30%	40%	26%	11%						
MXRA8-NM_001282582.2eU430-NP_001269511.1aa121SL	4	7%	3%	9%	2%	0			0			330	240	800	180	140	CGGCCTCGGCCTTCGACGACGGCAACTTCTCGCTGC	11%	9%	7%	3%						
MYBBP1A-NM_001105538.2eU905-NP_001099008.1aa282PL	2	4%	2%	5%		0			0			310	300	760	360	260	TCCGCCTGGCACTCAAGGAAGACAAGTTCCCACGGT	5%			3%						
MYBL1-NM_001080416.4eU4180-3'UTR+1541	4	12%	4%	14%	2%	0			0			230	290	800	180	180	AAAGATAAAAAACAAATGATGGCAAGTTCTCAAGTT	14%	16%	12%	7%						
MYD88-NM_001172566.2eU747-3'UTR+266	4	3%	2%	4%	2%	0			0			220	150	810	180	350	ACCTCTCAATTCCTGGAGATGCCAACTTCACAGACA	4%	5%	2%	2%						

MYH10-NM_001256012.3eU2201-NP_001242941.1aa700R*	3	6%	3%	8%	1%	0			0			340	350	630	350	0	GAATCTCTCACCAAGCTGATGGCAACTCTCCGAAAC
MYH10-NM_001256012.3eU3306-NP_001242941.1aa1068SL	4	3%	2%	3%	2%	0			0			310	190	790	120	290	AAATCAGGAATAAGCAAGAAGTGATGATCTCAGATT
MYH10-NM_001256095.2eU2135-NP_001243024.1aa678R*	2	12%	2%	12%	2%	0			0			340	350	630	350	0	GAATCTCTCACCAAGCTGATGGCAACTCTCCGAAAC
MYL6B-NM_001199629.2eU179-NP_001186558.1aa8PP	2	4%	0%	4%	0%	0			0			300	510	560	240	420	GGACATCATGCCTCCCAAGAAGGATGTTCCCGTGAA
MYL6B-NM_002475.5eU115-NP_002466.1aa8PP	4	3%	1%	3%	2%	0			0			300	510	560	240	420	GGACATCATGCCTCCCAAGAAGGATGTTCCCGTGAA
MYOF-NM_013451.4eU2713-NP_038479.1aa858TI	4	4%	2%	4%	1%	0			0			210	400	750	340	330	AGTTTAACAGCTTCGCAGAAGGAACTTTCACCGTCT
MYOF-NM_013451.4eU2838-NP_038479.1aa900LL	2	2%	0%	2%	0%	0			0			420	280	740	460	290	GGAAAAATAAAACTCAAGAGGGAATTTTTTCTGCCT
MYOM3-NM_152372.4eU3764-NP_689585.3aa1214TI	2	11%	2%	9%		0			0			220	170	780	260	260	TCACGGGTGACGCCCTGGATGCCATCTTCACCGAGT
NACC1-NM_052876.4eU2066-3'UTR+283	3	3%	0%	3%	0%	0			0			280	0	730	170	300	CCCCAACCTAACCCCTAGCCGTCATCTCCACACTCA
NAIF1-NM_197956.4eU257-NP_931045.1aa13SL	3	6%	2%	7%	1%	0			0			530	270	600	350	340	TCCCAGCCAAGAAAAGGAAGATGAACTTCTCAGAGC
NARS1-NM_004539.4eU1814-3'UTR+48	2	2%	0%	2%	0%	0			0			330	210	540	370	180	GTGGAGGAAAGATTATGAAAGGAACAGGCTCTTTAA
NASP-NM_001195193.2eU2028-NP_001182122.1aa641SL	4	3%	1%	4%	1%	0			3	40%	2%	360	150	660	330	340	CCAGTAGAAAGCCAACAGACGGTGCTTCCTCATCAA
NASP-XM_011541509.2eU2290-XP_011539811.1aa707SL	2	7%	2%	7%	2%	0			3	46%	17%	360	150	660	330	340	CCAGTAGAAAGCCAACAGACGGTGCTTCCTCATCAA
NBPF9-NM_001037675.4eU4135-NP_001032764.2aa941PL	4	10%	4%	10%	4%	0			0			400	220	820	320	250	ACCTGGTGTTCCAGATGGAAGTCATATTCCCACAAT
NCOR2-NM_001077261.4eU8581-3'UTR+735	3	2%	0%	2%	0%	0			0			340	460	570	320	330	TCAGATGTTTTACGCAAGGAAGGACTTACCCAGTAT
NDC1-NM_001168551.2eU933-NP_001162023.1aa300Q*	4	8%	3%	9%	2%	0			3	72%	1%	310	180	640	260	260	TTAGCCTTGCAGGACCTGATGTTGCTTTCTCAATAT
NDE1-XM_017023349.2eU1083-XP_016878838.1aa329HY	2	4%	1%	4%	1%	0			3	35%	6%	400	150	730	310	270	AAGCGCCTGGAATTTGGGAAGCCGCCTTCACACATG
NDUFB7-NM_004146.6eU143-NP_004137.2aa26PL	4	31%	9%	36%	2%	0			3	8%	1%	350	180	430	620	260	AGCCCGACCCCCTGCAGATGCCAACCTTCCCGCCAG
NDUFS1-NM_001199981.2eU1754-NP_001186910.1aa549PL	3	3%	1%	3%	1%	0			0			110	250	670	250	400	TTGGGGCTCCCATAGCTGATGTTATTCTCCCAGGAG
NDUFS3-NM_004551.3eU302-NP_004542.1aa95PL	4	6%	2%	7%	1%	0			3	49%	2%	150	230	720	180	210	AGGTCTGTATCCATCCTGATGGCGTCATCCCAGTGC
NEDD8-NM_006156.3eU213-NP_006147.1aa38PL	4	2%	1%	2%	0%	0			0			390	210	740	460	400	AGCGTGTGGAGGAGAAAGAGGGAATCCCCCCACAAC
NEK7-NM_133494.3eU3154-3'UTR+1938	3	4%	1%	4%	1%	0			0			310	70	770	220	450	TAATGTAATATAATTGAGATGAAATGTTCTCTGGTT
NFE2L2-NM_001145412.3eU2460-NP_001138884.1aa576FF	3	2%	1%	2%	1%	0			0			340	270	500	550	190	CCTGCAGCAAACAAGAGATGGCAATGTTTTCCTTGT
NHLRC2-NM_198514.4eU1033-NP_940916.2aa274SL	4	20%	14%	24%	15%	0			0			430	220	790	300	230	CCAACCCTGGAAGAAAAGATGGAATATTTTCAGAAT
NHP2-NM_001034833.2eU525-3'UTR+184	4	41%	14%	48%	1%	3	7%	1%	3	19%	2%	170	230	870	240	250	TCCTGCCCACCCACACTGACGGCATCTTCCCAGTTC
NHP2-NM_017838.4eU631-3'UTR+101	4	46%	13%	52%	2%	3	7%	3%	3	26%	5%	170	230	870	240	250	TCCTGCCCACCCACACTGACGGCATCTTCCCAGTTC
NICN1-NM_032316.3eU198-NP_115692.1aa38PL	3	19%	11%	26%	4%	0			0			210	290	720	290	180	CTGGCGTGCTGGTCATCGATGTCACCTTCCCCAGCG
NMD3-NM_015938.5eU2431-3'UTR+800	4	59%	17%	67%	6%	3	5%	2%	3	21%	2%	370	300	850	290	430	TTTTGTTTATAAATTGAGAAGGAATTTTCTCTCTAT
NNT-NM_001331026.2eU2278-NP_001317955.1aa649LL	2	6%	4%	8%		0			0			270	280	780	340	160	CCCTCTCCTACTGCCTGGAAGGCACTTACTCAATGC
NOL8-NM_001256394.2eU4002-3'UTR+301	3	11%	2%	11%	2%	3	8%	3%	1	3%		310	110	750	270	450	TCTATCCTGAGTAACTAATGGACATCTTCTCATGCA
NOLC1-NM_001284388.2eU2990-3'UTR+838	4	9%	3%	10%	2%	3	21%	2%	1	1%		230	160	770	220	210	TTGAGTTCTAAGTTGAGGACTGCATCTTCTCGTTTT
NONO-NM_001145408.2eU2435-3'UTR+752	4	63%	19%	73%	2%	3	6%	1%	3	20%	0%	360	210	850	250	470	CCCCTTCATGTCCTAAAGAAGACATTTTCTCTTAGA
NPIPA1-NM_006985.4eU323-NP_008916.2aa108TI	3	3%	1%	3%	1%	0			0			320	210	750	260	240	GAATTAAAATTGTCCTGGAAGACATCTTTACTTTAT
NPIPA5-NM_001277325.2eU323-NP_001264254.1aa108TI	3	2%	0%	2%	0%	0			0			320	210	750	260	240	GAATTAAAATTGTCCTGGAAGACATCTTTACTTTAT
NPPB-NM_002521.3eU137-NP_002512.1aa9RW	4	4%	1%	5%	0%	3	37%	1%	0			290	270	710	250	220	AGAGACATGGATCCCCAGACAGCACCTTCCCGGGCG
NPPB-NM_002521.3eU658-3'UTR+141	3	2%	0%	2%	0%	0			0			210	230	670	340	250	TTGATTGTTTTATATAAGATGGTTTCTTACCTTTGA
NR1D2-NM_001145425.2eU1210-NP_001138897.1aa290Q*	4	11%	3%	13%	2%	0			0			330	460	610	250	400	TGTGATAGAGTTCCGATAGATGGATTTTCTCAGAAT
NR2C2-NM_001291694.2eU2735-3'UTR+581	3	11%	3%	11%	3%	0			0			270	420	760	260	230	ATTTATGTTTAAGAAAAGAAGGCATCATTCCTAATT
NRF1-NM_001040110.2eU1063-NP_001035199.1aa318SL	2	8%	0%	8%	0%	0			0			310	220	730	200	200	AGACTTTTAGTAACCCTGATGGCACTGTCTCACTTA
NSFL1C-NM_001206736.2eU1307-3'UTR+163	2	2%	0%	2%	0%	0			3	46%	1%	310	270	400	380	490	TCTTAGATCTTGGTTGGACGTTTGTTTTCTCCTTAG
NT5C2-NM_001134373.3eU1571-NP_001127845.1aa504LF	2	3%	1%	3%	1%	0			3	32%	6%	360	90	720	290	330	CACGTAGATATCAATGAGATGGAGTCTCCTCTTGCC
NUBP1-NM_001278506.2eU1093-3'UTR+141	4	23%	6%	26%	1%	0			2	4%	0%	320	210	800	300	200	AGATGCTGGTGTGGTCCGAAGCCACTTTCTCAGAGA
NUBP1-NM_001323594.2eU973-3'UTR+141	2	56%	19%	56%	19%	0			0			320	210	800	300	200	AGATGCTGGTGTGGTCCGAAGCCACTTTCTCAGAGA
NUDT5-NM_001321647.2eU194-NP_001308576.1aa11Q*	4	6%	2%	7%	1%	0			0			280	200	790	300	290	ATGGAGAGCCAAGAACCAACGGAATCTTCTCAGAAT
NUFIP2-NM_020772.3eU3300-3'UTR+1123	2	5%	2%	5%	2%	0			3	66%	3%	340	300	750	180	250	AATAAACCCTGACTGTAGAAGGTGTGTTTTCATGCA
NUP62-NM_012346.5eU165-5'UTR-69	3	19%	7%	19%	7%	0			0			210	270	870	360	410	GGCCTCGGCTGAAGAAAGAAGAAATCTTCCCAAGGC
OCRL-NM_000276.4eU3586-3'UTR+699	4	21%	11%	26%	4%	0			0			280	140	770	210	270	CTGTAGGGACTATTAGAGATGGCATCTCATCGATGA
OGDH-NM_001003941.3eU127-NP_001003941.1aa25Q*	2	3%	0%	3%	0%	0			0			260	260	740	210	480	ACGGCTTCCCAGACTGTTAAGACATTTTCACAAAAC
ORC2-NM_006190.5eU97-5'UTR-135	3	7%	3%	7%	3%	0			0			250	310	760	290	200	CTTTTCCCGTTGGGGCCGAAGGTACCTTCCCTGCGG
OSBPL9-NM_001330580.2eU2421-3'UTR+253	4	5%	2%	5%	1%	0			3	68%	5%	310	170	740	140	430	TCAGGTTTTGAAAATCAGATGATGTCTTCTCCTTTT
OSBPL9-NM_001350208.2eU225-5'UTR-538	3	4%	2%	5%	1%	3	44%	4%	0			290	250	720	190	190	GTATAGACGATGAGGACGACAGCACCTTCACAATAA
OSGIN1-NM_182981.3eU309-NP_892026.1aa49PL	4	10%	4%	11%	3%	0			0			260	120	740	220	320	CACCCTACACGAAGCCAGATGCCATCCACCCACACC
OXA1L-NM_005015.5eU630-NP_005006.4aa206Q*	4	5%	3%	6%	4%	0			0			260	290	730	360	260	TACAAGGCTTCCTCGGAGATGGCACTTTACCAGAAA
PAN2-NM_001127460.4eU534-NP_001120932.2aa63SF	3	8%	2%	9%	2%	0			3	39%	6%	360	170	720	220	270	AATCAGTGCACATAATGGAAGGTGTCTACTCTGAAT
PAPOLA-NM_001252006.1eU607-NP_001238935.1aa130FF	4	2%	1%	2%	1%	0			0			530	310	690	300	140	ACCAAGACATGTTGATCGAAGTGACTTTTTCACCTC
PAPOLA-NM_001293627.1eU3572-3'UTR+1120	3	3%	1%	3%	1%	0			0			280	490	810	330	390	GTTTTAAATGTGGGCAAAAAGGCATTTTCTCCAAGA
PARP14-NM_017554.3eU3871-NP_060024.2aa1276Q*	2	2%	0%	2%	0%	0			0			310	200	780	390	490	GCTGGACAAAATGTAGAAAGGGAATGTTCTCAGCAA
PARP9-NM_001146103.2eU525-NP_001139575.1aa30PP	2	4%	1%	5%		0			0			210	310	720	200	260	TCTTGGAGAAAACTATAGTTGGCAAATTCCCATTAA
PARP9-NM_001146106.3eU4814-3'UTR+2402	3	40%	11%	40%	11%	0			0			170	170	890	180	300	TTGGTTGAGTGCAGCAAGAAGGCATCTACACATGCA
PATL1-NM_152716.3eU2845-3'UTR+390	4	8%	4%	10%	0%	1	3%		3	78%	2%	340	270	670	250	270	CCTTCCCTCATCCTATTGAAGTTGTTTTTTCATTGC
PAWR-NM_001354732.2eU1585-3'UTR+389	4	30%	8%	34%	5%	0			2	6%	1%	210	70	730	270	330	AGTTCAAATACTTTTGGGATGTTACCTTCACATGTC
PAXBP1-NM_016631.4eU2459-NP_057715.2aa791SL	4	10%	3%	8%	1%	1	4%		0			280	270	780	290	350	GCAATTTTCTTCAGTGGTATGGCATTTTCTCAAATA
PBX2-NM_002586.5eU2743-3'UTR+1163	3	12%	1%	12%	1%	0			0			170	240	820	320	290	ATTTTGAGGAAATTGAAGATGCCATCTTCCCCTGTG
PCLAF-NM_001029989.3eU762-3'UTR+494	4	44%	18%	53%	6%	0			3	21%	16%	350	110	620	350	510	ATGTTGGAAAACCTTGGATGGATATCTTCTCTTTAA
PCLO-NM_014510.3eU14767-NP_055325.2aa4825LL	4	7%	4%	9%	4%	0			0			180	340	760	80	510	CCTCGATAACACTCCAAGGTGGTATCCTCTCAAAGA
PCLO-NM_014510.3eU14874-NP_055325.2aa4861PL	4	3%	2%	4%	2%	0			0			260	230	700	240	390	TTATCAAAAGCAGAAGCCATGGTATCTTCCCTGACC
PCSK9-NM_174936.4eU2921-3'UTR+552	3	2%	0%	2%	0%	0			0			220	160	740	320	70	GGAGGCTTAGCTTTCTGGATGGCATCTAGCCAGAGG
PCYT1A-NM_001312673.2eU727-NP_001299602.1aa202TI	4	32%	8%	36%	2%	0			3	12%	4%	220	170	850	210	400	CTCCAACACAGAGGACAGAAGGTATCTCCACATCAG
PDCD10-NM_007217.4eU714-NP_009148.2aa77TM	3	10%	0%	10%	0%	0			0			220	230	720	220	250	TAGAGAAAAAAAGCGTGGAAGTTAACTTCACGGAGT
PDE4DIP-NM_001002811.2eU2147-NP_001002811.2aa497PL	2	3%	1%	2%		0			0			410	280	630	560	240	GACAACTTCACAGCTCAGAGGGTACTTCTCCAGCTC
PDHB-NM_000925.4eU1300-3'UTR+197	2	3%	1%	3%	1%	0			0			220	250	630	260	260	TCCACTCTCCTCCCCTAGATGCCATGCTTCCTTTTG
PDHB-NM_000925.4eU189-NP_000916.2aa56LF	3	4%	2%	4%	2%	0			0			330	290	680	320	350	GAGCTGGAAAGAGATGAGAAGGTATTTCTGCTTGGA
PDLIM5-NM_001011513.4eU1401-NP_001011513.4aa435PP	3	6%	2%	6%	2%	0			0			310	320	680	390	240	TGGTACTATATGCCATGGATGTGAATTTCCCATAGA
PEG10-NM_001040152.2eU6371-3'UTR+4959	4	2%	1%	2%	0%	0			0			380	300	690	260	140	TGAACTTGTCAATGATGGATGGTAAATTTTCATGGA
PERP-NM_022121.5eU1349-3'UTR+688	4	23%	7%	26%	5%	0			0			310	130	770	290	430	TAAGTGTGAAATATTTAGATGAAATTTTCTCTTTTA
PEX13-NM_002618.4eU495-NP_002609.1aa152SL	3	9%	2%	9%	3%	0			0			340	130	700	350	140	CTGTCAGTATGATGATGGATGCTACCTTTTCAGCTG
PEX1-NM_000466.3eU1586-NP_000457.1aa501LL	2	26%	5%	26%	5%	0			1	9%		320	300	810	290	310	GAAACTAAAGATGGACTGAAGGAATTTTCTCTGAGT
PGBD4-NM_152595.5eU2024-NP_689808.2aa525PP	2	32%	25%	32%	25%	0			0			260	260	760	460	310	ACCTCTTCGTCTGTCTGGAAGACATTTCCCCAAGAG
PHF12-NM_001033561.2eU4243-3'UTR+670	3	16%	3%	16%	3%	0			0			340	240	750	250	370	GTGTAAATACATCTAGTGATGACATTTTTTCAATGT
PHF20-NM_016436.5eU447-NP_057520.2aa117TI	2	5%	0%	5%		0			0			250	150	610	380	310	TCACTGCTGTTAACAAGGATGGTACTTACACTGTGA
PHLDB1-NM_001144759.3eU4032-NP_001138231.1aa1309TI	3	5%	2%	5%	2%	0			0			110	130	710	230	360	CCATGCGTATCTGGATGGATGTCATTGTCACAGGGG

MYH10-NM_001256012.3eU2201-NP_001242941.1aa700R*		7%	9%	4%						
MYH10-NM_001256012.3eU3306-NP_001242941.1aa1068SL	5%	2%	2%	3%						
MYH10-NM_001256095.2eU2135-NP_001243024.1aa678R*		13%	10%							
MYL6B-NM_001199629.2eU179-NP_001186558.1aa8PP		3%	4%							
MYL6B-NM_002475.5eU115-NP_002466.1aa8PP	4%	1%	4%	3%						
MYOF-NM_013451.4eU2713-NP_038479.1aa858TI	3%	4%	6%	1%						
MYOF-NM_013451.4eU2838-NP_038479.1aa900LL		2%	2%							
MYOM3-NM_152372.4eU3764-NP_689585.3aa1214TI		9%		12%						
NACC1-NM_052876.4eU2066-3'UTR+283	3%	3%	3%							
NAIF1-NM_197956.4eU257-NP_931045.1aa13SL	8%	7%		4%						
NARS1-NM_004539.4eU1814-3'UTR+48	2%		2%							
NASP-NM_001195193.2eU2028-NP_001182122.1aa641SL	3%	5%	4%	1%				37%	41%	41%
NASP-XM_011541509.2eU2290-XP_011539811.1aa707SL		8%	6%					29%	44%	63%
NBPF9-NM_001037675.4eU4135-NP_001032764.2aa941PL	15%	7%	9%	10%						
NCOR2-NM_001077261.4eU8581-3'UTR+735	2%	2%	1%							
NDC1-NM_001168551.2eU933-NP_001162023.1aa300Q*	11%	8%	9%	3%				71%	71%	72%
NDE1-XM_017023349.2eU1083-XP_016878838.1aa329HY	4%		3%					34%	30%	41%
NDUFB7-NM_004146.6eU143-NP_004137.2aa26PL	37%	35%	34%	18%				9%	7%	9%
NDUFS1-NM_001199981.2eU1754-NP_001186910.1aa549PL	2%	2%	4%							
NDUFS3-NM_004551.3eU302-NP_004542.1aa95PL	8%	5%	7%	3%				50%	47%	51%
NEDD8-NM_006156.3eU213-NP_006147.1aa38PL	3%	3%	2%	1%						
NEK7-NM_133494.3eU3154-3'UTR+1938	5%	4%	3%							
NFE2L2-NM_001145412.3eU2460-NP_001138884.1aa576FF	2%	1%	2%							
NHLRC2-NM_198514.4eU1033-NP_940916.2aa274SL	38%	9%	25%	11%						
NHP2-NM_001034833.2eU525-3'UTR+184	49%	49%	47%	20%	8%	6%	8%	19%	18%	21%
NHP2-NM_017838.4eU631-3'UTR+101	55%	52%	51%	27%	4%	9%	8%	23%	23%	31%
NICN1-NM_032316.3eU198-NP_115692.1aa38PL	29%	23%		7%						
NMD3-NM_015938.5eU2431-3'UTR+800	73%	62%	67%	35%	7%	5%	3%	23%	22%	20%
NNT-NM_001331026.2eU2278-NP_001317955.1aa649LL	8%			3%						
NOL8-NM_001256394.2eU4002-3'UTR+301	9%	12%	13%		10%	5%	8%	3%		
NOLC1-NM_001284388.2eU2990-3'UTR+838	8%	12%	11%	5%	20%	23%	20%			1%
NONO-NM_001145408.2eU2435-3'UTR+752	74%	73%	70%	35%	7%	7%	6%	21%	21%	20%
NPIPA1-NM_006985.4eU323-NP_008916.2aa108TI	3%	3%	4%							
NPIPA5-NM_001277325.2eU323-NP_001264254.1aa108TI	2%	2%	3%							
NPPB-NM_002521.3eU137-NP_002512.1aa9RW	5%	5%	5%	2%	36%	37%	38%			
NPPB-NM_002521.3eU658-3'UTR+141	2%	2%	2%							
NR1D2-NM_001145425.2eU1210-NP_001138897.1aa290Q*	15%	12%	11%	7%						
NR2C2-NM_001291694.2eU2735-3'UTR+581	11%	14%	8%							
NRF1-NM_001040110.2eU1063-NP_001035199.1aa318SL		8%	8%							
NSFL1C-NM_001206736.2eU1307-3'UTR+163	2%		2%					47%	45%	47%
NT5C2-NM_001134373.3eU1571-NP_001127845.1aa504LF		2%	4%					25%	35%	37%
NUBP1-NM_001278506.2eU1093-3'UTR+141	27%	27%	25%	14%					4%	4%
NUBP1-NM_001323594.2eU973-3'UTR+141	43%	69%								
NUDT5-NM_001321647.2eU194-NP_001308576.1aa11Q*	6%	7%	8%	3%						
NUFIP2-NM_020772.3eU3300-3'UTR+1123		7%	4%					69%	66%	63%
NUP62-NM_012346.5eU165-5'UTR-69	12%	23%	24%							
OCRL-NM_000276.4eU3586-3'UTR+699	27%	30%	23%	6%						
OGDH-NM_001003941.3eU127-NP_001003941.1aa25Q*		3%	2%							
ORC2-NM_006190.5eU97-5'UTR-135	9%	7%	4%							
OSBPL9-NM_001330580.2eU2421-3'UTR+253	5%	7%	4%	3%				68%	64%	73%
OSBPL9-NM_001350208.2eU225-5'UTR-538	5%	4%		2%	40%	46%	47%			
OSGIN1-NM_182981.3eU309-NP_892026.1aa49PL	13%	14%	8%	5%						
OXA1L-NM_005015.5eU630-NP_005006.4aa206Q*	10%	4%	3%	3%						
PAN2-NM_001127460.4eU534-NP_001120932.2aa63SF		8%	11%	7%				43%	32%	42%
PAPOLA-NM_001252006.1eU607-NP_001238935.1aa130FF	3%	2%	2%	2%						
PAPOLA-NM_001293627.1eU3572-3'UTR+1120	4%	3%	3%							
PARP14-NM_017554.3eU3871-NP_060024.2aa1276Q*		2%	2%							
PARP9-NM_001146103.2eU525-NP_001139575.1aa30PP			5%	4%						
PARP9-NM_001146106.3eU4814-3'UTR+2402	44%	48%	28%							
PATL1-NM_152716.3eU2845-3'UTR+390	10%	9%	10%	3%		3%		80%	76%	77%
PAWR-NM_001354732.2eU1585-3'UTR+389	35%	39%	29%	20%				6%		5%
PAXBP1-NM_016631.4eU2459-NP_057715.2aa791SL	10%	7%	8%	13%			4%			
PBX2-NM_002586.5eU2743-3'UTR+1163	13%	12%	10%							
PCLAF-NM_001029989.3eU762-3'UTR+494	59%	47%	52%	17%				8%	38%	16%
PCLO-NM_014510.3eU14767-NP_055325.2aa4825LL	10%	12%	4%	2%						
PCLO-NM_014510.3eU14874-NP_055325.2aa4861PL	5%	2%	5%	2%						
PCSK9-NM_174936.4eU2921-3'UTR+552	2%		2%	2%						
PCYT1A-NM_001312673.2eU727-NP_001299602.1aa202TI	38%	35%	34%	21%				13%	15%	7%
PDCD10-NM_007217.4eU714-NP_009148.2aa77TM	10%	10%	10%							
PDE4DIP-NM_001002811.2eU2147-NP_001002811.2aa497PL		2%		3%						
PDHB-NM_000925.4eU1300-3'UTR+197		2%	3%							
PDHB-NM_000925.4eU189-NP_000916.2aa56LF	3%	4%	6%							
PDLIM5-NM_001011513.4eU1401-NP_001011513.4aa435PP	6%	4%	8%							
PEG10-NM_001040152.2eU6371-3'UTR+4959	2%	2%	2%	1%						
PERP-NM_022121.5eU1349-3'UTR+688	31%	27%	20%	14%						
PEX13-NM_002618.4eU495-NP_002609.1aa152SL	7%		11%	8%						
PEX1-NM_000466.3eU1586-NP_000457.1aa501LL		23%	30%					9%		
PGBD4-NM_152595.5eU2024-NP_689808.2aa525PP	50%		14%							
PHF12-NM_001033561.2eU4243-3'UTR+670	19%	15%	15%							
PHF20-NM_016436.5eU447-NP_057520.2aa117TI		5%		6%						
PHLDB1-NM_001144759.3eU4032-NP_001138231.1aa1309TI	6%	3%	6%							

PHOSPHO2-NM_001199290.3eU2840-3'UTR+803	2	29%	4%	29%	4%	0			0			350	210	860	350	370	G G A A T T T G A C A T T T A A A G A G G G A A T C T T C T C T A C C T	31%		26%																	
PI4K2B-NM_018323.4eU499-NP_060793.2aa123PL	2	6%	0%	6%	0%	0			0			250	350	670	430	250	C A G A G C A A G C A A T A G A A G T T G G A A T T T T T C C A G A A A	6%	6%																		
PIAS3-NM_006099.3eU715-NP_006090.2aa208PP	3	10%	8%	10%	8%	0			0			430	380	520	520	530	G A C C A G C T G C C C C C A G G A A G A T T A T T T T C C C C C A A	19%	5%	5%																	
PIBF1-NM_001349655.2eU371-NP_001336584.1aa36SL	4	22%	11%	27%	3%	0			0			320	60	720	360	410	A A A C A A C A G T T C C T A C G G A T G A A T A T T T C C T A C A G	30%	29%	24%	7%																
PIM3-NM_001001852.4eU1690-3'UTR+533	4	8%	3%	9%	1%	0			0			450	60	670	370	330	T G T T T A A T T T A T T T G T T G A G G T T A T T T C C T C T G A G C	7%	10%	10%	3%																
PLAAT3-NM_001128203.2eU567-NP_001121675.1aa155SL	4	8%	3%	9%	2%	0			1	1%		190	280	780	100	340	C A G C C A T G A G C C T T A T T G G A G T C A T G T T C T C A A G A A	6%	8%	11%	4%				1%												
PLCXD1-NM_001370370.1eU4325-3'UTR+3090	2	15%	2%	15%	2%	0			0			360	530	520	390	400	T T T T T T T T G T T T T T T G A G A T G G A T T T T C C T C T T G	14%	17%																		
PLK2-NM_001252226.2eU2014-NP_001239155.1aa629LL	4	3%	1%	3%	0%	0			0			570	150	600	400	400	C A T C T G T A G C C A A A A T G A A G A A T A C C T T C T C A C C T A	3%	3%	2%	2%																
PLPBP-NM_001349346.2eU2322-3'UTR+1449	4	24%	9%	28%	5%	0			3	24%	6%	320	220	770	270	350	T T G T T T T T T A T T T T C C A G A T G G C T T T T T C T C T T A T T	34%	24%	26%	13%				30%	19%	24%										
PLXNB2-NM_001376864.1eU1412-NP_001363793.1aa427SL	4	12%	8%	15%	7%	1	4%		3	7%	2%	370	90	830	260	180	A G G T G T A C C T C A C C C C A G A T G G C A C C T C C T C A G A G T	22%	16%	8%	4%	4%			5%	6%	9%										
PM20D2-NM_001010853.3eU2104-3'UTR+703	4	10%	6%	13%	4%	0			0			220	220	730	380	330	T T T G T A T T T T A G T A G A G A C G G C A T T C A C C A T G T T	16%	9%	13%	3%																
PMEPA1-NM_001255976.2eU1712-3'UTR+664	3	29%	12%	29%	12%	0			0			270	240	760	220	140	T A T G T C A G T G C T T G C T T G A T G G A A A C T T C T C T T G T G	35%	16%	36%																	
PNISR-NM_001322405.2eU1935-NP_001309334.1aa578RR	2	3%	1%	3%	1%	0			0			160	260	750	190	480	T A G A C G T A G C A G G A G T A G A A G C T A T T C T C G C A G A A T		3%	2%																	
PNO1-NM_001329916.2eU339-NP_001316845.1aa98PS	3	2%	0%	2%	0%	0			0			320	240	710	250	370	T T G A A A G A A A A C T G G A T G A A G A T A T T T A C T C C T A T T	1%	1%	2%																	
PNPT1-NM_033109.5eU856-NP_149100.2aa279PS	4	8%	3%	9%	1%	0			0			170	310	710	310	370	A C C A A G A G G A C A C C T C A G A A G T T A T T T A C C C C T T C G	9%	10%	9%	4%																
POLDIP2-NM_001290145.2eU198-NP_001277074.1aa40SL	2	1%	0%	1%	0%	0			3	11%	2%	370	160	640	230	300	T C T G T G C G C G C C G G A G C T G G A G C C T T C T C G C C A G	1%	1%						14%	9%	10%										
POLDIP2-NM_001290145.2eU573-NP_001277074.1aa165PL	4	6%	2%	7%	2%	0			1	1%		200	370	750	220	360	T G G A C T A T G T C A G C C A T G A A G A C A T C C T C C C C T A C A	9%	6%	5%	5%				1%												
POLE-NM_006231.4eU5024-NP_006222.2aa1666TI	4	2%	0%	2%	0%	0			0			340	0	810	300	420	C C A T T G G G A A C C T A C C A G A G G A C A T C T C C A C A T T C G	3%	2%	2%	2%																
POLK-NM_001345921.2eU558-NP_001332850.1aa157II	3	9%	7%	12%	8%	0			0			330	280	770	320	310	T T G G C C T G A G G A T A A A A G A A G G T A T T T C A T C A A A A T		18%	7%	4%																
POLM-NM_001284331.2eU1392-NP_001271260.1aa434Q*	4	33%	18%	39%	16%	0			0			280	390	790	350	330	C T G T T T G A C C C G G A G C A G A A G A C A T T T T C C A A G C G	36%	25%	56%	14%																
POLR1D-NM_001206559.2eU645-NP_001193488.1aa63YY	4	6%	2%	7%	2%	0			0			180	310	770	160	350	A A A C C C G A A G A A A C A C A G A A G C C A T C C T T A C A A G C A	5%	7%	8%	3%																
POLR2C-NM_032940.3eU216-NP_116558.1aa57SL	4	3%	1%	3%	1%	0			0			280	140	700	320	200	T T G A C T G G G T T C A G A T T G A T G C C A A T T C C T C A G T T C	3%	2%	5%	3%																
POU2F2-NM_001207025.4eU5695-3'UTR+4220	4	37%	19%	40%	22%	3	38%	8%	1	35%		390	80	460	190	90	G A C C T G A C T A G T T T T C T A A C C C A C A T G A A C A C C A G	40%	19%	63%	27%	38%	47%	31%	35%												
PPP1R12B-NM_001197131.1eU7564-3'UTR+6977	4	12%	5%	11%	5%	0			3	63%	13%	290	270	580	490	350	T T T A T A G C T T A A A A C A G A A G T G T G T C T T C C C A G C A C	12%	15%	6%	16%				69%	48%	71%										
PPP1R15B-NM_032833.5eU1648-NP_116222.4aa414PP	4	15%	9%	18%	8%	0			3	6%	2%	380	220	650	580	220	T G A T T A C T C A T A C C T A G A A G G T G A C C T T C C C A T T T C	27%	16%	11%	5%				4%	6%	8%										
PPP1R2-NM_001291504.2eU3310-3'UTR+2389	4	30%	10%	34%	7%	0			0			170	350	770	390	350	G T T G A A G A T T A A A G C A A G A T G C C A T T T C C C C A T G A	43%	29%	30%	19%																
PPP3R1-NM_000945.4eU729-NP_000936.1aa108SS	4	4%	1%	5%	1%	0			0			360	290	510	570	290	C T A T G A C A T G G A T A A A G A T G G C T A T A T T T C C A A T G G	6%	3%	5%	3%																
PPP4R3A-NM_001284280.2eU1301-NP_001271209.1aa213SF	4	54%	13%	61%	3%	0			3	8%	3%	320	150	770	140	270	A T C G A A C T G C T C T T T T T G A A G T T A T G T T C T C T G A A G	60%	64%	58%	34%				7%	11%	6%										
PPRC1-NM_001288727.2eU3141-NP_001275656.1aa1038LF	2	2%	0%	2%	0%	0			0			450	160	620	420	100	A A T G T A C T T C C C T T G T C G A T G G C T C C T C C C C T C A G T		2%	2%																	
PRELID3A-NM_001142405.2eU439-NP_001135877.1aa131TI	2	11%	1%	11%	1%	0			0			150	150	790	160	340	T G A C C G T G C T C A C A C A A G A A G C C A T C A T C A C T G T G A	12%	10%																		
PREX1-NM_020820.4eU6261-3'UTR+1142	4	34%	9%	39%	5%	0			2	17%	4%	280	240	810	140	200	C T G T G A T T T A T T T T C T T G A T G G T A A C T T C T C A G A G C	41%	33%	42%	22%				14%		20%										
PRIM2-NM_000947.5eU1480-NP_000938.2aa467Q*	4	4%	2%	5%	1%	0			0			280	350	720	450	120	G G T G G T A A A G A C A T A A A G A A G G A A C C T A T C C A A C C A	6%	4%	5%	2%																
PRKAG1-NM_001206709.2eU56-NP_001193638.1aa7SL	3	14%	7%	14%	7%	0			0			440	160	530	570	210	C G C C T C T T G C A A T G G A G A C G G T C A T T T C T T C A G A T A	11%	22%	10%																	
PRKAR1A-NM_001276289.2eU722-NP_001263218.1aa155SL	4	7%	2%	8%	1%	0			0			300	130	700	220	110	A G A G A A G T G A T A T T T T T G A T G C C A T G T T T T C G G T C T	8%	9%	8%	4%																
PRPF39-NM_017922.4eU1662-NP_060392.3aa503FF	3	4%	1%	4%	1%	0			0			310	270	680	260	110	T T A T G C T G T C A A A C T A G C C C G G C A T C T T T T C A A A A T	5%	4%	3%																	
PRPF4B-NM_003913.5eU407-NP_003904.3aa94PL	4	11%	6%	14%	2%	0			0			370	220	690	480	290	T T G A T G C T T C T G A T A A A G A G G G T A T G T C T C C A G C A A	16%	11%	14%	3%																
PRPF8-NM_006445.4eU287-NP_006436.3aa63PL	4	6%	2%	7%	1%	0			0			250	200	690	370	360	T T G T G G A T G C C C A G A A G G A A G A C A T G C C C C C A G A A C	6%	8%	7%	3%																
PRPS1-NM_001204402.2eU1624-3'UTR+956	4	4%	1%	4%	2%	0			0			210	130	660	150	370	T C C T G T T A A A A A A G A T T G A T G T T A T T G T C T C T T G T A	2%	5%	4%	5%																
PRR11-NM_018304.4eU208-NP_060774.2aa48SL	4	14%	7%	16%	6%	0			0			310	260	650	280	390	C A C C C T C A C C A G A A A G A G T C G G T A T T T C T T C A A T A G	23%	11%	14%	7%																
PRRC2B-NM_001384818.1eU1926-NP_001371747.1aa565Q*	4	8%	3%	9%	3%	1	2%		3	4%	1%	220	240	890	310	330	T G G T C T C C A A G T G C T G A G A A G G C A T C T C C C C A G G A A	12%	8%	7%	4%			2%	4%	5%	3%										
PRRC2B-NM_001384818.1eU230-5'UTR-5	3	7%	2%	7%	2%	0			0			470	60	680	280	290	G A A A A A T T T C C T T A C T A G A T G A C A T T T C A T G C A A T	6%	7%	9%																	
PSMD2-NM_001278708.2eU596-NP_001265637.1aa153TI	4	2%	1%	2%	1%	0			0			210	250	860	140	420	A T G A C A T G G A G T T G G T A G A A G A C A T C T T C A C C T C C T	2%	3%	2%	2%																
PSMD6-NM_001271779.2eU444-NP_001258708.1aa123LL	2	3%	0%	3%	0%	0			0			400	220	500	400	180	C C T C G A C T G G C A G A T A G A C G T G G A C C T A C T C A A T A A		3%	3%																	
PSMD6-NM_014814.3eU285-NP_055629.1aa70LL	3	3%	1%	3%	1%	0			0			400	220	500	400	180	C C T C G A C T G G C A G A T A G A C G T G G A C C T A C T C A A T A A	2%	4%	1%																	
PTBP1-NM_002819.5eU63-NP_002810.1aa6PL	4	4%	3%	5%	2%	0			1	1%		160	290	750	330	310	C T G C T C T G T G T G C C A T G G A C G G C A T T G T C C C A G A T A	7%	3%	5%	1%					1%											
PTEN-NM_000314.8eU2338-3'UTR+281	4	48%	9%	52%	4%	0			3	30%	8%	210	290	750	400	320	C A A T T A G G A T T A A T A A A G A T G G C A C T T T C C C G T T T T	56%	50%	48%	36%				35%	33%	21%										
PTGES2-NM_001256335.2eU1183-3'UTR+334	3	3%	0%	3%	0%	0			3	3%	1%	300	220	670	360	170	C C T C G A C A G G A C A G C A G G A C G G T T T G T T T T C A G T G G	3%	3%	4%					3%	3%	4%										
PTPN12-NM_001131008.2eU1632-NP_001124480.1aa437SL	2	3%	2%	3%	2%	0			0			330	310	780	280	160	C C A T A C C T G A T T T A T C T G A A G G C A A T T C C T C A G A T A		4%	2%																	
PTPN14-NM_005401.5eU8217-3'UTR+4079	2	11%	2%	11%	2%	0			0			340	190	690	420	210	T G T G G G T C C C A A C A C C A G A T G T C A T T T C T C C A G A G C		13%	10%																	
PUS7-NM_001318163.1eU1642-NP_001305092.1aa545PL	4	6%	2%	7%	1%	0			0			220	120	730	240	230	T G C C C T T G C C T G G T T T C G A T G T T A T C T A C C C A A A G C	8%	7%	6%	4%																
PUS7-NM_001318163.1eU514-NP_001305092.1aa169TI	4	6%	2%	7%	1%	0			0			360	210	790	180	320	A T G A G G A G G A C C C T T C A G A A G A C A T A T T T A C A G T T T	7%	8%	7%	3%																
QRICH1-NM_001320580.2eU2146-NP_001307509.1aa570SF	4	12%	6%	15%	2%	0			0			320	230	810	210	430	T T G A A A A T G G A A G G G T A G A T G A C A T T T C T C C G A T C	13%	17%	14%	5%																
RAB35-NM_001167606.2eU204-NP_001161078.1aa34SL	3	4%	1%	4%	1%	3	32%	5%	0			390	170	710	220	360	T A C T G T T G C G T T T T G C A G A C A A C A C T T T C T C A G G C A		5%	4%	3%	36%	35%	26%														
RAB3IP-NM_001024647.3eU712-NP_001019818.1aa125PL	4	43%	12%	49%	3%	0			3	9%	1%	280	280	760	400	250	T A G A C A A A A T C T A C C A G G A A G A T A T C T T T C C A T G T T	48%	52%	47%	25%				7%	9%	10%										
RABGAP1-NM_012197.4eU683-NP_036329.3aa187SL	2	5%	2%	5%	2%	0			0			280	180	670	170	250	A G T G T C A G A T T T C A C T A G A T G T T A C C C T T T C A G T G C		6%	4%																	
RABIF-NM_002871.5eU1793-3'UTR+1370	3	19%	2%	19%	2%	0			2	16%	10%	360	260	480	540	320	C C T A C T C C C C T G G A A A G A T G G C T T C C T T C T C C A A T T	19%	18%	21%					24%	9%											
RABIF-NM_002871.5eU246-NP_002862.2aa65LL	4	10%	4%	11%	2%	0			0			410	230	560	460	250	T G A C G G C A G C A A T C C T G A C G G C G A T C T C C T C A G G A	13%	9%	13%	5%																
RACGAP1-NM_001126103.3eU2433-3'UTR+243	2	3%	0%	3%	0%	0			0			240	360	680	240	480	T G T T G G G A G C T T T T A G A T G A G A C A T C T T T C C A G G G G		2%	3%																	
RAD51C-NM_002876.4eU249-NP_002867.1aa69LL	2	3%	1%	3%	1%	0			0			450	330	730	150	360	A A C T C T G C A A A T T A T C A G A A G A G A A T G T C T C A C A A A		3%	2%																	
RAD51-NM_001164269.2eU1136-NP_001157741.1aa329AV	2	2%	0%	2%	0%	0			0			170	300	730	180	270	C C T G T C T T C C T G A A G C T G A A G C T A T G T T C G C C A T T A	3%		2%																	
RAF1-NM_001354689.3eU477-NP_001341618.1aa49TI	2	3%	1%	3%	1%	0			0			240	290	690	120	260	A G C G C C G G G C A T C A G G A T G A T G G C A A A C T C A C A G A T C	2%	3%																		
RALGDS-NM_001042368.3eU2822-3'UTR+12	3	8%	2%	8%	2%	0			0			190	280	800	270	320	T G C C A A G G G C A T C T T C T G A G G G C A T C C T C C A G G G T	10%	8%	5%																	
RALY-NM_007367.4eU441-NP_031393.2aa43SF	4	1%	0%	1%	0%	3	5%	0%	0			480	160	730	310	250	T G A A G A A A T C A G A T G T G G A G A C C A T C T T C T C T A A G T	1%	2%	1%	1%	5%	6%	5%													
RAP1B-NM_001010942.3eU1307-3'UTR+581	2	2%	0%	2%	0%	0			0			400	150	550	390	190	T T A A A A A A C C T G T G G A G A C G G T G A T C T T G T C T T T A A		2%	2%																	
RAPGEF6-NM_001164386.2eU5581-3'UTR+552	2	13%	7%	18%		0			0			290	210	840	180	280	T C T G G T C T G A C C A A A C A G A A G T C A T C T T T A C A G A G G		18%		9%																
RASSF8-NM_001164746.2eU3165-3'UTR+1364	2	19%	4%	21%		0			0			440	80	690	300	240	G T A G T T T T A A T T C T G A A G A A G T T A C A T C C T C T G T A T	21%			16%																
RBL1-NM_001323281.2eU1923-NP_001310210.1aa167PL	2	4%	1%	4%	1%	0			0			300	270	820	280	350	A A G T T C C T A C C T G T G A A G A A G T T A T A T T C C C A A A T A		4%	5%																	
RBM39-NM_001242599.2eU1876-3'UTR+16	4	3%	1%	3%	0%	0			0			320	220	660	300	390	C C A A G T A G A C G A T G A A G G A A G A T A T A G T C C T T A T G	3%	4%	4%	1%																
RBM39-NM_001242599.2eU2397-3'UTR+537	4	49%	16%	57%	4%	3	9%	1%	3	23%	4%	300	270	800	180	170	T C A A A A T T A T A T T T C T T G A T G G T A T C T T T T C A A T T A	53%	61%	56%	26%	8%	10%	8%	28%	22%	21%										
RBMXL1-NM_001162536.3eU3871-3'UTR+2313	3	11%	1%	11%	1%	0			0			290	300	800	160	230	G G T C C A G A G G G A G A A A A G A A G G C A T G A T T T C A G A A T	11%	10%	11%																	
RBSN-NM_001302378.2eU770-NP_001289307.1aa104SS	2	13%	3%	15%		0			0			240	330	790	320	270	G G A G C T T G G T G C T G T G A G A A G C C A T C T T T C C G A C T T	15%			11%																	
RCC2-NM_001136204.3eU1479-NP_001129676.1aa486SL	4	31%	10%	36%	3%	3	5%	1%	3	21%	1%	280	220	860	290	270	A G G A G G T A A A G A C T C T G G A T G G C A T T T T C T C A G A G C	39%	32%	36%	17%	5%	6%	3%	20%	21%	22%										
RCE1-NM_001032279.2eU352-NP_001027450.1aa10PL	2	6%	1%	6%	1%	0			0			250	290	820	480	310	T G A T G G G C T T C A G G C T G G A G G G C A T T T T C C C A G C G G	5%	6%																		
RCE1-NM_005133.3eU356-NP_005124.1aa114PL	2	5%	2%	5%	2%	0			0			250	290	820	480	310	T G A T G G G C T T C A G G C T G G A G G G C A T T T T C C C A G C G G	4%	7%																		
RCOR1-NM_015156.4eU4248-3'UTR+2552	4	28%	8%	31%	4%	0			0			260	160	770	220	340	G T G T G A T A A C T G C T T C A G A T G G A A T G T T C A C T T A A G	35%	27%	32%	17%																
RCOR1-NM_015156.4eU4690-3'UTR+2994	4	19%	6%	20%	7%	0			1	8%		370	110	740	370	320	T G T A C A G T G T T T G T G G A G A C G C C A C T T C C T C A A A A T	16%	28%	15%	16%						8%										
RDX-NM_001260494.2eU3112-3'UTR+1519	4	9%	4%	11%	2%	0			0			280	280	760	360	230	T T C G G T T A T A G C T T A C T G A A G A A A T C T T T C C A G T T A	12%	9%	11%	3%																
RELCH-NM_001346229.2eU4323-3'UTR+319	2	12%	0%	12%	0%	0			0			390	250	780	220	210	G T T T T T T T T A A T T T T T G G A T G G G A T A T T C G C A A A T A	12%	12%																		
REV3L-NM_001286431.2eU7848-NP_001273360.1aa2309HY	3	5%	1%	6%	0%	0			0			340	360	810	300	260	A C C T A T G C T G C T G A T G A G A A G G C A C T T T T T C A T G A A		5%	6%	4%																
RFX3-NM_001282116.2eU4129-3'UTR+1616	3	49%	19%	55%	23%	0			0			380	260	670	390	190	T A A G C A G G T A C T T A T C G A A G T G C A T C T T T T C A G T C T		71%	38%	38%																
RILPL1-NM_001319243.2eU671-NP_001306172.1aa145SL	2	17%	9%	17%	9%	0			0			280	210	760	330	240	C C A A C C T C T C C C A C A A G G A T G T C A A T T C T C A G A G G	11%	23%																		

RILPL2-NM_145058.3eU951-3'UTR+51	3	8%	2%	8%	2%	0			0			220	460	710	220	270	CTATGGCTCTGATTCTAGAAGACAACCTTCCAAGAT	11%	7%	8%							
RIN3-NM_001319987.2eU1989-NP_001306916.1aa622SL	2	7%	0%	7%	0%	0			0			170	80	780	240	210	TCCTGAAGCCCCTGAAGGAAGCCATCAACTCATGCC		7%	7%							
RIPK2-NM_001375360.1eU2021-3'UTR+307	4	53%	20%	62%	9%	0			0			170	210	820	330	360	ATGATGTATTTCTGATGGAAGCCATTTTCACATTCA	71%	54%	60%	25%						
RNF11-NM_014372.5eU2172-3'UTR+1223	4	7%	2%	8%	3%	0			0			330	360	680	540	250	GTTGTGATCTCAAAAAAGAAGGAATTTCTCCTTTGT	7%	11%	6%	5%						
RNF141-NM_016422.4eU110-5'UTR-5	2	12%	5%	12%	5%	0			0			340	250	760	340	230	CAACACTCTGGATTTTGAAAGACATCTTTTCATCAT	16%	9%								
RNF24-NM_001134337.3eU1224-3'UTR+648	4	18%	14%	21%	15%	0			0			370	140	790	320	310	TTGGAAAGGCCTAGTCAGAAGCCATTTCCTCTTATC	38%	19%	7%	10%						
RNF6-NM_005977.4eU2488-3'UTR+17	4	7%	5%	9%	5%	0			0			370	180	810	140	250	CAAACAATGGGTAAGGTGATGGGATCTACTCAAATA	15%	5%	6%	4%						
RNF6-NM_005977.4eU2910-3'UTR+439	4	22%	10%	26%	7%	3	76%	3%	0			380	260	710	260	210	TAACTTTTTATTTTAAGGACAGTATCTTTTCATGAA	34%	24%	20%	11%	73%	79%	77%			
RNGTT-NM_001286426.2eU732-NP_001273355.1aa175RC	3	7%	2%	7%	2%	0			0			340	360	680	380	100	TACAAGGGTGATTATTTGAAGGAACTTTTTCGTCGG	5%	7%	9%							
RPAP2-NM_024813.3eU1256-NP_079089.2aa414SL	4	12%	5%	14%	2%	0			0			340	70	790	120	370	AAGAAGAACTTGATGAAGATGACATAATCTCAGATC	15%	12%	16%	4%						
RPL14-NM_001034996.3eU674-NP_001030168.1aa181Q*	4	2%	0%	2%	0%	0			3	2%	1%	260	240	710	350	240	AAAAAGGCTCCAGCCCAGAAGGTTCCTGCCCAGAAA	2%	2%	2%	1%				3%	1%	2%
RPL8-NM_000973.5eU515-NP_000964.1aa160SL	4	5%	2%	6%	1%	3	0%	0%	3	2%	0%	360	40	690	500	350	TGCCCTCCGGCTCCAAGAAGGTTATCTCCTCAGCCA	7%	6%	6%	3%	0%	0%	0%	2%	2%	2%
RPLP1-NM_001003.3eU1-5'UTR-132	2	4%	5%	0%		2	0%	0%	1	25%		250	310	310	170	120	CACATAAGAGGCTGCGTATAGGCGCGAGAGCCCCTT	0%			8%		0%	0%	25%		
RPRD1A-NM_001303411.2eU3450-3'UTR+2297	4	22%	7%	25%	5%	0			0			300	210	880	180	190	CAATACAGTCTGATTTAGAAGTCATCTTTTCAGCCG	29%	25%	20%	13%						
RPS11-NM_001015.5eU547-3'UTR+47	4	8%	3%	10%	0%	1	2%		0			230	250	740	330	410	GCTCCCCACAATGAAATAAAGTTATTTTCTCATTCC	10%	9%	10%	3%			2%			
RPS21-NM_001024.4eU291-NP_001015.1aa80SL	4	12%	4%	14%	2%	0			3	1%	0%	220	210	840	80	210	TCCGATTGGCCAAGGCCGATGGCATCGTCTCAAAGA	12%	16%	13%	6%				1%	1%	1%
RPS21-XM_024451959.1eU1513-3'UTR+360	4	18%	3%	19%	1%	0			3	2%	0%	220	210	840	80	210	TCCGATTGGCCAAGGCCGATGGCATCGTCTCAAAGT	19%	20%	20%	13%				3%	2%	2%
RPS21-XM_024451960.1eU1047-XP_024307728.1aa325SL	2	27%	3%	27%	3%	0			0			220	210	840	80	210	TCCGATTGGCCAAGGCCGATGGCATCGTCTCAAAGA	29%	25%								
RRAGA-NM_006570.5eU1348-3'UTR+173	4	11%	6%	14%	1%	0			0			230	60	720	330	290	CCAGTCTTTAAACATTGGACGCTATTTACTCAGCTA	14%	13%	14%	3%						
RTF1-NM_015138.5eU1403-NP_055953.3aa461SF	3	7%	3%	7%	4%	0			0			360	190	810	220	330	AGTTTATGAAGTGGAAAGAAGCGATGTTCTCTGCTG	11%		4%	5%						
S100PBP-NM_001256121.2eU2612-3'UTR+1108	2	7%	1%	7%	1%	0			0			210	70	700	210	200	GGTGTCTTTAGGCCCTGGATGTTACCATCTCATTTG	6%	7%								
SCARB2-NM_001204255.2eU925-NP_001191184.1aa215PL	2	3%	0%	3%	0%	0			0			160	340	770	180	360	GGTTTGTTTCTGCCATAGAAGGCATGCACCCAAATC		3%	3%							
SCCPDH-NM_016002.3eU941-NP_057086.2aa309LL	4	50%	15%	57%	3%	3	6%	1%	3	14%	2%	280	320	890	220	140	TGTGAGGTTTGGAATTGGAAGGCAACTTCTCATAAA	59%	60%	53%	27%	7%	5%	7%	13%	16%	13%
SCD-NM_005063.5eU2775-3'UTR+1423	4	8%	3%	10%	2%	0			3	9%	0%	440	300	740	410	150	GAAATGAGTAAAAACTAGAAGGCTTCTCTCCACAGT	11%	10%	8%	4%				8%	9%	9%
SCHIP1-NM_001197107.2eU2324-3'UTR+322	2	2%	0%	2%	0%	3	13%	1%	0			250	370	610	430	450	TAGAGATTTTAAGTTGGAACAGTATTTTCCCATTGA		2%	2%		13%	14%	12%			
SCO1-NM_004589.4eU988-3'UTR+56	2	2%	0%	2%	0%	0			0			480	170	520	530	480	ATTCTCTTGCTAAGAGGAAGGAAACTGTCTCGCATA	3%		2%							
SCRN1-NM_001145513.1eU2049-3'UTR+627	3	3%	1%	3%	0%	0			3	38%	7%	210	220	790	320	350	CATCCTGGGCTCCTGAAGAAGCTGTCTTCCCATTTT		3%	4%	2%				37%	46%	31%
SCRN1-NM_001145513.1eU572-NP_001138985.1aa132SF	4	5%	3%	6%	2%	0			0			170	230	740	150	350	CAGCTAAAGAAGCCTTAGATGTCATTGTCTCCTTGT	4%	7%	8%	2%						
SDF4-NM_016176.6eU586-NP_057260.3aa101SF	4	5%	2%	6%	1%	0			2	1%	0%	390	320	590	390	190	GGAGCCGGAGGAAGCTGATGGTCATCTTTTCCAAGG	7%	6%	6%	2%				1%		1%
SDHC-NM_003001.5eU217-NP_002992.1aa64PP	3	2%	0%	2%	0%	0			0			130	270	710	200	440	CCACATTACTATCTACAGTTGGTCTCTTCCCATGGC	2%	2%	2%							
SEC14L1-NM_001143998.2eU3568-3'UTR+1146	4	54%	21%	64%	4%	0			3	21%	5%	220	240	870	260	300	AACTTAGTTTGAGTAATGAAGGAATCTTCACAGAAG	60%	68%	65%	24%				16%	25%	21%
SEC22B-NM_004892.6eU378-NP_004883.3aa80PL	3	3%	1%	3%	1%	0			3	50%	5%	340	270	640	330	280	GTTATTTGGTTTTATGTGAAGCTGCCTTCCCTAAGA	3%	4%	2%					45%	52%	53%
SEC23B-NM_001172745.3eU1217-NP_001166216.1aa282PL	3	2%	1%	2%	1%	0			0			410	400	690	570	140	TTGCTGTTGGCTTGCTGGAGGGCACTTTTCCAAACA	2%		1%	1%						
SEC24D-NM_001318066.2eU2064-NP_001304995.1aa613Q*	3	8%	4%	8%	4%	0			0			320	340	690	400	440	GTTAATACAGACAAAGAGAAGATACTTTTCCAGCCC	5%	12%	7%							
SEC63-NM_007214.5eU3033-3'UTR+551	4	11%	3%	12%	2%	0			0			280	270	750	150	420	ACTTATCTTGGTCATAAGTTGGCATTCTCTCACATT	10%	11%	14%	7%						
SEL1L3-NM_001297592.2eU2384-NP_001284521.1aa777PL	3	18%	2%	18%	2%	0			2	8%	3%	210	230	820	320	210	TTGGAGTCCTGCATTTGGATGGCATCTTCCCTGGAG	20%	19%	16%					6%	10%	
SEMA4D-NM_001371194.2eU4086-3'UTR+993	2	7%	1%	7%	1%	0			0			210	210	810	270	310	GAACCTCCTGTGAGACAGATGGAACCTTCACAAGGG		6%	8%							
SEPTIN10-NM_001321496.2eU1225-3'UTR+35	2	6%	4%	6%	4%	0			0			190	160	680	370	340	GAAGTTCCAGAGCACAGAAGGTCATCATCACAAGCA	9%		3%							
SEPTIN7P2-NR_024271.1eU1177-ncr	3	12%	7%	12%	7%	0			0			220	220	690	380	390	GGCAGCTCACTAATAGAGACGGTATTTCACCATGTT	5%	18%	12%							
SERINC1-NM_020755.4eU516-NP_065806.1aa149TI	4	3%	1%	3%	1%	0			0			280	410	730	380	230	GGGCATTCTTCATTCCAGAAGGAACTTTTACAACTG	4%	3%	2%	2%						
SERPINH1-NM_001207014.3eU1728-3'UTR+326	4	3%	1%	3%	0%	2	1%	0%	0			330	240	690	270	200	AGTATTCATATTTATAGCCAGGTACCTTCTCACCTG	3%	3%	3%	2%		0%	1%			
SETD2-NM_001349370.3eU4843-NP_001336299.1aa1513TI	4	8%	4%	10%	3%	0			0			240	200	750	160	330	AACAGCATGCAGATGTGGAAGTCATACTCACAGAAA	7%	12%	11%	3%						
SF3B1-NM_012433.4eU1255-NP_036565.2aa409PL	4	29%	9%	33%	4%	0			3	5%	1%	220	140	780	280	350	TTTCTGATGAGGAATTAGATGCTATGTTCCCAGAAG	36%	34%	29%	17%				5%	5%	6%
SGMS2-NM_001136257.2eU1266-NP_001129729.1aa305Q*	2	8%	3%	8%	3%	0			0			220	280	790	140	370	GCCAATGAAAAGAACTTGAAGGTCTCTTCACAGACT		7%	10%							
SGTA-NM_003021.4eU1149-3'UTR+143	3	3%	1%	3%	1%	0			0			220	630	560	310	480	CTCGGACCTGCATGTCAAGATGGATTTTCCCCTTTT	3%	2%	3%							
SH3BP5-NM_001018009.4eU2283-3'UTR+827	4	19%	6%	22%	2%	0			0			270	210	710	250	340	TGTTATTAGATTGACAAGATGTTAATTTCTCTGTAG	24%	24%	20%	10%						
SH3KBP1-NM_001024666.3eU2576-3'UTR+600	4	24%	9%	28%	3%	0			0			370	270	710	220	220	AATTTTAGCTTATATATGACGGTATATTTACAAAAA	24%	30%	30%	10%						
SH3RF2-NM_152550.4eU1518-NP_689763.4aa432PL	4	8%	2%	8%	3%	0			0			180	280	830	200	370	CCTTGGTCACCGGGCGAGTCGGCATCTTCCCAAACA	11%	9%	6%	8%						
SH3RF2-NM_152550.4eU951-NP_689763.4aa243PL	2	6%	3%	6%	3%	0			0			170	360	820	240	330	GCAAGTTAGGAGATAAAGTAGGCATCTTCCCTATCT		4%	8%							
SHMT1-NM_001281786.2eU2237-3'UTR+703	3	5%	2%	5%	2%	0			0			260	230	730	370	260	CCGTAATCAGGAAGCCAAATGTCACCTTCCCAAAGA	4%	5%	7%							
SIK2-NM_015191.3eU4921-3'UTR+2025	4	18%	7%	21%	6%	0			3	72%	10%	300	330	740	430	390	ATTTGTTTAGACTGAAGGAAGACGTTTTCCCAAAAT	18%	27%	16%	11%				61%	75%	81%
SKP2-NM_001243120.2eU1208-3'UTR+28	3	7%	4%	7%	4%	0			3	48%	2%	430	150	610	370	130	TGAAGTATTTATTGCAGGATGGTGTCTCTTCTTTAG	11%	6%	4%					48%	47%	51%
SLC19A1-NM_001205206.4eU1293-NP_001192135.1aa391LL	3	24%	15%	32%	6%	3	43%	10%	0			270	160	810	100	290	CCCATCGCCACCTTTCAGATTGCATCTTCTCTGTCT		36%	28%	8%	32%	52%	45%			
SLC19A1-NM_001205207.3eU1201-NP_001192136.1aa351LL	4	20%	10%	24%	7%	3	38%	7%	0			270	160	810	100	290	CCCATCGCCACCTTTCAGATTGCATCTTCTCTGTCT	21%	18%	32%	7%	32%	45%	36%			
SLC25A17-NM_001282726.2eU1150-3'UTR+75	4	4%	1%	4%	2%	0			0			240	370	700	250	540	TTCCTCCTGAGTGAAGAGAAGTGATTCTCCCTTGAC	6%	4%	3%	4%						
SLC35A5-NM_001348905.2eU542-NP_001335834.1aa127SL	3	16%	5%	16%	5%	0			0			240	120	750	180	310	ATCTTCAACCAGCCATGGCTGTTATCTTCTCAAATT	21%	16%	10%							
SLC35B2-NM_001286509.2eU1521-3'UTR+108	3	3%	1%	3%	1%	0			3	37%	5%	230	300	700	210	370	GGCTGAAAGGGCAAAATGCAGGTGTTTTCTCAGTAT	4%		3%	2%				39%	32%	41%
SLC35C1-NM_001145265.2eU2428-3'UTR+1229	3	17%	5%	17%	5%	0			3	54%	12%	410	160	720	190	320	CTGTTTCCCGATCCATAGATGGTGCCTTCTCGCTGT	22%	13%	17%					44%	67%	50%
SLC35D2-NM_007001.3eU625-NP_008932.2aa183TI	4	8%	2%	8%	3%	0			0			210	110	710	300	440	ATATTTTTGTATTCCTGAATGATATCTTCACAGCAG	5%	9%	10%	7%						
SLC38A10-NM_001037984.3eU1318-NP_001033073.1aa311AV	2	5%	0%	5%	0%	0			0			280	220	780	270	160	GTGAGCAGCAGCAAAAAGATGGCACCTTTGCAGCAG		5%	6%							
SLC38A2-NM_001307936.2eU1413-NP_001294865.1aa293PL	4	8%	4%	10%	2%	0			1	1%		130	330	740	270	410	TGACCCTGACAGTACCAGTAGTTATTTTCCCAATCC	11%	10%	8%	2%						1%
SLC6A6-NM_001134367.3eU1889-NP_001127839.2aa624SL	3	21%	5%	21%	5%	0			0			290	150	610	60	460	CAGTTCTCTGTGTTGGATGTTTCATCTTCTCGCTCG	26%	19%	17%							
SLC8A3-NM_001130417.3eU2557-3'UTR+1322	4	8%	1%	8%	2%	0			0			240	340	710	430	230	TTGTTCTTAAACTTCATGAAGCTATTTTTCCAGCCT	6%	9%	7%	8%						
SLC8A3-NM_033262.5eU4735-3'UTR+1322	2	12%	0%	12%	0%	0			0			240	340	710	430	230	TTGTTCTTAAACTTCATGAAGCTATTTTTCCAGCCT		13%	12%							
SLC9A6-NM_001042537.2eU2411-3'UTR+237	4	23%	12%	28%	11%	0			1	8%		210	210	720	380	310	GACTGGATCTGTTTTAGGAAGTTACTTTCACAGTGA	39%	27%	17%	11%						8%
SLC9A6-NM_001042537.2eU2476-3'UTR+302	4	36%	15%	42%	7%	0			0			320	420	560	250	440	AGTTAAAGTGTAAAAAAGTGACGGATTTCTCTTTCT	38%	51%	38%	15%						
SLFN11-NM_001104587.2eU756-NP_001098057.1aa104YY	2	3%	1%	3%	1%	0			3	57%	10%	280	360	670	370	320	TGAGACCAAGCAACAAGGAAGGTGTTTTTACATTTT		2%	3%					51%	69%	52%
SLFN11-NM_001104587.2eU943-NP_001098057.1aa167HY	4	5%	1%	5%	2%	0			0			620	500	570	230	330	AAGCCAAAAATCTTGGAAGAAGGACCTTTTCACAAA	6%	3%	5%	5%						
SMAD5-NM_001001419.3eU6012-3'UTR+4168	2	7%	1%	8%		0			0			390	290	720	320	170	AATCGAATGTGAGAATTGAAGGCATTTCTTCTGCAT			8%	7%						
SMAP1-NM_001044305.3eU1306-NP_001037770.1aa389Q*	2	2%	0%	2%	0%	0			0			370	60	700	370	240	AATGCACAAACTGGTGTGATGCCACTTCCTCAGAAC		2%	2%							
SMARCB1-NM_001007468.3eU671-NP_001007469.1aa156PL	4	3%	2%	3%	1%	1	2%		0			470	410	550	620	260	GCATGGGCCGAGACAAGAAGAGAACCTTCCCCCTTT	5%	3%	3%	1%		2%				
SMC6-NM_001142286.2eU3395-NP_001135758.1aa1040Q*	2	3%	1%	4%		0			0			250	230	800	280	220	ATGGACTTGATACTGAAGATGGCAGATTCCCAGCGT	4%			2%						
SMNDC1-NM_005871.4eU1772-3'UTR+882	3	3%	1%	3%	1%	0			0			250	280	630	310	340	TTCTTGTGCATTAATCTGACGATAATTTCCCTGTAT	3%	2%	3%							
SNAPC5-NM_001329614.2eU337-NP_001316543.1aa14HY	3	13%	5%	12%	7%	0			3	30%	11%	420	70	790	180	430	TCTAGAAGAGGGGATGAGATGCTGTCTTCTCACACT		17%	8%	14%				21%	42%	28%
SNAPC5-NM_001329615.2eU185-NP_001316544.1aa52HY	4	10%	3%	11%	4%	0			3	34%	3%	420	70	790	180	430	TCTAGAAGAGGGGATGAGATGCTGTCTTCTCACACT	13%	7%	13%	7%				32%	37%	34%
SNHG29-NR_027158.1eU242-ncr	4	11%	6%	13%	3%	0			1	3%		380	140	740	370	310	AGCCAGGAGCCTGCCATGAGGTTATATTCCCAGAGG	15%	10%	15%	3%				3%		
SNHG29-NR_027159.1eU565-ncr	4	24%	9%	28%	1%	0			3	6%	1%	380	180	660	530	350	GCATCTCAGCCCAAGAGAAGGTTATATTCCCAGAGG	29%	27%	29%	11%				8%	6%	6%
SNHG29-NR_027160.1eU688-ncr	4	23%	7%	27%	2%	0			2	7%	2%	380	180	660	530	350	GCATCTCAGCCCAAGAGAAGGTTATATTCCCAGAGG	24%	28%	27%	13%				8%	5%	
SNHG29-NR_027162.1eU741-ncr	3	23%	8%	23%	8%	0			0			380	180	660	530	350	GCATCTCAGCCCAAGAGAAGGTTATATTCCCAGAGG	24%	30%	14%							
SNHG29-NR_027166.1eU299-ncr	4	36%	16%	43%	8%	0			0			380	180	660	530	350	GCATCTCAGCCCAAGAGAAGGTTATATTCCCAGAGG	34%	50%	44%	14%						
SNHG29-NR_027170.1eU343-ncr	4	34%	17%	42%	8%	0			1	11%		380	180	660	530	350	GCATCTCAGCCCAAGAGAAGGTTATATTCCCAGAGG	34%	50%	43%	10%				11%		

SOCS5-NM_014011.5eU4642-3'UTR+2844	3	67%	29%	67%	29%	0			0			220	250	750	280	360	TTGTTAATATTACTTTAGATGGCATTTCCACCTGAT	100%	50%	50%							
SORT1-NM_001205228.2eU2624-3'UTR+328	4	8%	2%	9%	2%	0			0			530	340	780	230	40	GAAACGAAATGGAATTCGAAGGGACCTTTTCACTAA	11%	8%	8%	6%						
SP100-NM_001080391.2eU1133-NP_001073860.1aa346SL	3	2%	0%	2%	0%	0			2	2%	0%	170	150	800	140	290	ACGTTGATGAGCCCTTAGAAGTCTTCATCTCAGCAC	1%	2%	2%					2%		2%
SP100-NM_003113.4eU3042-3'UTR+306	3	5%	3%	5%	3%	0			3	48%	3%	480	230	470	540	370	ATTAGTTGTATATGAGGATGGTAGTTTTTTCACCTT	8%	3%	4%					50%	48%	45%
SP110-NM_001185015.2eU834-NP_001171944.1aa223LL	2	1%	0%	1%	0%	0			3	17%	3%	420	80	420	300	430	AGAAGACTCAGAAGAGATGCCCAGCCTCCTCACTAG	1%		1%					14%	20%	17%
SPARC-NM_001309443.2eU3038-3'UTR+2065	4	31%	11%	36%	5%	3	1%	0%	3	2%	1%	360	130	710	380	310	ACATACCTAGATCTCCAGATGTCATTTCCCCTCTCT	41%	31%	36%	16%	1%	2%	2%	1%	2%	3%
SPART-NM_001142294.2eU1697-NP_001135766.1aa535LL	4	7%	3%	8%	2%	0			0			400	80	600	340	580	CTTAAAAAAGACAAAGATGGGAAATCTCCTCTGGAT	6%	9%	10%	3%						
SPART-NM_001142294.2eU2310-3'UTR+215	4	23%	11%	28%	5%	0			1	5%		310	200	820	140	350	TCTGGCCTTAGAAATGTGAAGTTATATTCTCAAGTT	34%	26%	25%	7%					5%	
SPCS1-NM_014041.5eU366-NP_054760.4aa75LL	4	14%	5%	16%	3%	0			1	2%		130	260	760	40	320	TCCATGGCCCATCTATCGCCGGCATCCTCTCAAGTG	16%	19%	14%	7%						2%
SPDYE2-XM_017012223.1eU4800-3'UTR+3107	2	43%	24%	60%		2	45%	46%	2	27%	7%	160	370	500	230	520	TGGGTGTCCTCAGACCACATGTACTTCTCACCAACT	60%			26%	13%		78%	22%		32%
SPG21-NM_001127889.5eU859-NP_001121361.1aa257PL	4	3%	2%	4%	1%	0			0			180	530	760	270	410	GAGCTCATCTGAAAACAGGAGGCAATTTCCCATACC	3%	5%	3%	1%						
SPIN1-NM_006717.3eU3875-3'UTR+2833	4	7%	3%	8%	2%	0			3	78%	1%	280	510	650	350	280	CAAATGTAGTGCCAACAGAAGGTGATTTTCCAGTTG	10%	9%	6%	3%				77%	79%	79%
SPIN1-NM_006717.3eU826-NP_006708.2aa191RR	4	4%	3%	4%	3%	0			2	2%	0%	380	150	650	520	260	CTTAGATGATTACAAAGAAGGCGACCTTCGCATTAT	8%	3%	2%	2%					2%	2%
SPIN4-NM_001012968.3eU1750-3'UTR+487	2	8%	3%	8%	3%	0			0			480	60	690	250	290	TTCTCACTTGACATGTAGATGATATCTCTTCTTATC	10%	5%								
SRGN-NM_001321053.2eU451-NP_001307982.1aa88PL	2	1%	0%	1%	0%	2	3%	1%	0			270	270	660	360	350	CGAGAATCCAGGACTTGAATCGTATCTTCCCACTTT	1%		1%		3%		4%			
SRP14-NM_001309434.1eU640-3'UTR+103	2	1%	0%	1%	0%	0			3	37%	3%	220	300	700	170	500	TTTCTGGTTCCCCCACAGTAGGTGTTTTCACATAAG		1%	1%					34%	37%	39%
SRRM1-NM_001303448.2eU587-NP_001290377.1aa188PS	4	9%	3%	10%	2%	0			3	3%	1%	420	360	570	530	290	AGATCTCCTTCCCCTAGAAGACGATCTTCCCCTGTC	10%	12%	8%	4%				2%	2%	4%
SRR-NM_001304803.1eU689-NP_001291732.1aa112TI	4	14%	6%	17%	4%	0			0			250	70	740	220	400	TTATCAGGGACCTTGTGGATGATATCTTCACTGTCA	15%	21%	14%	6%						
SSNA1-NM_003731.3eU512-3'UTR+101	3	2%	0%	2%	0%	0			0			360	220	680	290	280	CTTTGTTCTTCACGGCAGCAGCTACCTTCCCTCACT	2%	2%	2%							
STAM2-NM_005843.6eU4692-3'UTR+2993	4	44%	17%	41%	20%	0			0			380	360	680	380	160	ATGCTTTATTTCTATCGGAAGGTACTTTTTCTTCTT	57%	47%	19%	53%						
STARD3NL-NM_001363340.2eU242-5'UTR-50	3	5%	1%	5%	1%	0			3	43%	17%	310	240	700	260	270	AGTTTGGATAAGTTTAGCAAGGTGTCTTCTCTTTAG	5%	4%		4%				33%	32%	62%
STAT1-NM_001384880.1eU390-NP_001371809.1aa27PP	3	1%	0%	1%	0%	0			3	19%	3%	330	280	410	600	390	GGTTCACCAGCTTTATGATGACAGTTTTCCCATGGA	1%	1%	1%					16%	18%	21%
STIL-NM_001048166.1eU228-NP_001041631.1aa25HY	4	42%	11%	46%	8%	0			3	13%	8%	380	290	700	450	100	AGGTTTCCTTCAAGCAGGATGGTACCTTTCCACTTT	51%	38%	50%	28%				4%	17%	17%
STIL-XM_011541991.2eU968-XP_011540293.1aa25HY	3	40%	14%	46%	14%	0			1	57%		380	290	700	450	100	AGGTTTCCTTCAAGCAGGATGGTACCTTTCCACTTT		56%	36%	29%				57%		
STMN1-NM_001145454.3eU231-NP_001138926.1aa46SS	4	2%	1%	2%	1%	0			0			370	670	540	280	440	CCTTTCCCCTCCAAAGAAGAAGGATCTTTCCCCTGGA	3%	3%	1%	1%						
STMN1-NM_001145454.3eU232-NP_001138926.1aa47LL	4	5%	2%	6%	1%	0			3	4%	0%	250	370	670	540	280	CTTTCCCCTCCAAAGAAGAAGGATCTTTCCCTGGAG	7%	5%	5%	3%				3%	4%	3%
STMN1-NM_005563.4eU231-NP_005554.1aa46SS	2	2%	0%	2%	0%	0			0			370	670	540	280	440	CCTTTCCCCTCCAAAGAAGAAGGATCTTTCCCCTGGA	2%		2%							
STMN1-NM_005563.4eU232-NP_005554.1aa47LL	3	6%	0%	6%	0%	0			2	6%	0%	250	370	670	540	280	CTTTCCCCTCCAAAGAAGAAGGATCTTTCCCTGGAG	7%	6%	6%						5%	6%
STRIP2-NM_001134336.2eU1088-NP_001127808.1aa349LL	2	3%	0%	3%	0%	0			0			380	250	830	210	100	AGGCCGCCGTGGCTCTCGAAGGCAACTCCTCACTAA		4%	3%							
STXBP4-NM_178509.6eU2700-3'UTR+831	3	33%	23%	42%	26%	0			0			390	230	750	300	80	CATTCCACAGAGATTCAGAAGGCACCTCTTCGGTCA		24%	60%	17%						
STXBP6-NM_001304476.3eU1485-3'UTR+434	3	13%	2%	13%	2%	0			0			280	310	660	350	310	TTAATGTGGTGACATCAGATGTTATTTTTCCTAGAT	15%	11%	14%							
SUGP2-NM_001017392.5eU3766-3'UTR+425	4	16%	10%	18%	11%	0			3	64%	3%	270	220	730	210	450	ATGTGGAAACGATCACAGATGGTGTTTTCTCGTTGT	30%	17%	8%	11%				67%	61%	65%
SUPT5H-NM_001111020.3eU172-NP_001104490.1aa10SF	3	2%	0%	1%	0%	3	19%	3%	0			430	440	640	260	40	AGATGTCGGACAGCGAGGACAGCAACTTTTCCGAGG		1%	1%	2%	15%	21%	19%			
SUPT5H-NM_003169.4eU276-NP_003160.2aa10SF	2	2%	1%	3%		3	19%	3%	0			430	440	640	260	40	AGATGTCGGACAGCGAGGACAGCAACTTTTCCGAGG	3%			2%	16%	22%	21%			
SYNJ1-NM_001160302.1eU2289-NP_001153774.1aa722HY	2	9%	4%	9%	4%	0			0			170	200	740	470	370	AGTTTTCCTATGGGAAGGATGCTATTTTCCCATGAC	12%	6%								
SYNJ1-NM_001160302.1eU6402-3'UTR+2389	4	28%	14%	35%	7%	2	6%	2%	3	16%	3%	270	150	860	220	330	AAAATACTATATTTATAGAAGTAATCTTCTCTGTTA	30%	31%	43%	8%	4%	8%		13%	17%	17%
SZRD1-NM_001114600.3eU175-NP_001108072.1aa53PP	4	3%	2%	4%	2%	0			3	45%	1%	470	220	350	540	340	GCCCATTGTGATTCAGGACGATAGCCTTCCCGCGGG	5%	5%	2%	1%				45%	46%	46%
SZRD1-NM_001271869.2eU172-NP_001258798.1aa52PP	4	5%	1%	5%	1%	0			3	72%	6%	470	220	350	540	340	GCCCATTGTGATTCAGGACGATAGCCTTCCCGCGGG	6%	4%	6%	4%				66%	79%	72%
SZRD1-NR_073502.2eU125-ncr	4	4%	3%	5%	3%	0			3	47%	4%	470	220	350	540	340	GCCCATTGTGATTCAGGACGATAGCCTTCCCGCGGG	8%	5%	3%	2%				43%	47%	50%
SZRD1-NR_073503.2eU122-ncr	3	4%	2%	4%	2%	0			3	45%	5%	470	220	350	540	340	GCCCATTGTGATTCAGGACGATAGCCTTCCCGCGGG	5%	5%	2%					43%	50%	41%
TACC1-NM_001122824.2eU5950-3'UTR+4415	3	7%	2%	7%	2%	0			0			370	230	750	300	280	TAATTTAGAACTGTCAAGATGTCACTTTCTCCCCCT	9%	6%	5%							
TADA3-NM_006354.5eU233-5'UTR-54	4	9%	3%	10%	2%	0			0			300	200	630	290	290	ACTGAACTGGGCTCTTGACGGGCATCATCTCTTAAT	12%	8%	11%	4%						
TAF1B-NM_001318976.1eU1029-NP_001305905.1aa63PL	4	14%	4%	16%	3%	0			0			200	350	690	260	250	GTATGAAATACTTGATGGAAGTCAACCTCCCTGATG	12%	19%	16%	10%						
TAF5L-NM_014409.4eU2607-3'UTR+596	2	8%	3%	8%	3%	0			0			390	160	840	280	260	GAAACCTAGCACTGGCAGAGGGCACCTTCTCTGCTT		6%	10%							
TAF9-NM_001015892.2eU861-NP_001015892.1aa195Q*	3	2%	0%	1%	0%	0			0			230	150	770	240	260	CAAAGGTTTACAGTACAGATGCCTACTTCTCAGTCT	2%		1%	2%						
TAOK3-NM_001346487.2eU2283-NP_001333416.1aa610LL	2	13%	2%	13%	2%	0			0			450	110	640	440	380	CACACAGGCTGAAGAGGAAGCCCACCTTCTCACTCA	14%	11%								
TAP1-NM_000593.6eU897-NP_000584.3aa277Q*	3	1%	0%	1%	0%	0			3	16%	2%	280	400	670	430	330	GCTGTCCTGCGCCAGGAGACGGAGTTTTTCCAACAG	1%	1%	1%					17%	14%	17%
TAPT1-NM_153365.3eU2126-3'UTR+408	4	16%	11%	13%	10%	0			0			240	200	720	400	110	TGTGAAACTTTTACCACGACGTAATCTTTCCAGTCT	25%	7%	7%	26%						
TBCD-NM_005993.5eU654-NP_005984.3aa175LL	3	3%	1%	4%	2%	0			0			460	130	590	550	180	TGATTTTTCTCGCCTTGACGGGAACCTCCTCACCCA		3%	5%	2%						
TCAIM-NM_001029839.3eU168-NP_001025010.1aa19HY	4	24%	6%	26%	3%	0			0			360	140	760	280	620	AGGAGGTTATGTCTAGAGAAGATATTTCCACACTGG	28%	29%	23%	16%						
TCAIM-NM_001029840.3eU290-NP_001025011.1aa19HY	2	21%	1%	21%	1%	0			0			360	140	760	280	620	AGGAGGTTATGTCTAGAGAAGATATTTCCACACTGG		22%	21%							
TCEA1-NM_006756.4eU2026-3'UTR+797	4	7%	4%	8%	3%	0			0			310	220	770	360	340	ATCCCCTCATAGGCAAAGATGAAAACTTCCCACTAT	7%	11%	7%	2%						
TCF4-NM_001083962.2eU6350-3'UTR+4159	2	11%	2%	11%	2%	0			0			170	200	710	350	350	TATTTTACTATTTAAAAGATGTTATTTTACCATGTG		9%	13%							
TDP2-NM_016614.3eU504-NP_057698.2aa156PL	4	17%	6%	20%	2%	0			0			210	260	650	440	360	ATGTGATATTTCTACAGGAAGTTATTCCCCCATATT	22%	19%	20%	8%						
TEAD1-NM_021961.6eU2075-3'UTR+173	4	13%	5%	14%	6%	0			0			300	270	790	250	290	CTAAATCTTGTTTGAGTGAAGTCATTTTTTCATGTG	8%	19%	16%	10%						
TEAD2-NM_001256658.2eU647-NP_001243587.1aa185Q*	2	6%	2%	8%		0			0			160	260	750	190	470	TGGAATGTTCCAGATGTGAAGCCATTCTCACAGACA		8%		4%						
TEX261-NM_144582.3eU3253-3'UTR+2546	3	3%	1%	3%	1%	0			0			260	110	650	440	330	GCTCACTTGCCTGCCTAATGGTCATCTCCCCAGTAG	3%	3%	2%							
TFAM-NM_001270782.2eU151-NP_001257711.1aa5R*	4	2%	1%	2%	1%	0			3	20%	1%	380	330	560	420	250	GCCTCATCCACCGGAGCGATGGCGTTTCTCCGAAGC	3%	2%	2%	1%				19%	22%	20%
TFB2M-NM_022366.3eU710-NP_071761.1aa196PL	2	9%	5%	9%	5%	0			0			130	280	740	280	290	ACATCCCTTTAAAAGTAGTTGGAATGTTCCCAAGTA	12%		5%							
TFIP11-NM_001008697.3eU1122-NP_001008697.1aa265Q*	4	19%	5%	21%	1%	0			1	5%		270	350	840	340	280	AAGCTCACTGCTCCCCAGAAGGAACTTTCTCAAGTC	23%	21%	20%	11%				5%		
TFIP11-NM_001008697.3eU310-5'UTR-21	4	17%	12%	20%	12%	0			0			310	80	790	230	320	AAGAATCTGGGATCTAAGAAGATACCTACTCATTTT	33%	10%	16%	8%						
TFIP11-NM_001008697.3eU3209-3'UTR+366	2	6%	1%	6%	1%	0			0			500	440	610	140	460	CGAGTTCAGTCAGTAGCAGAAGGATCTTCTCTCTTG		6%	7%							
TFIP11-NM_001346861.2eU229-5'UTR-21	3	23%	8%	23%	8%	0			0			310	80	790	230	320	AAGAATCTGGGATCTAAGAAGATACCTACTCATTTT	13%	25%	29%							
TFIP11-NM_012143.4eU233-5'UTR-21	4	28%	7%	30%	6%	0			0			310	80	790	230	320	AAGAATCTGGGATCTAAGAAGATACCTACTCATTTT	37%	26%	28%	20%						
TFRC-NM_001128148.3eU2583-3'UTR+229	3	3%	1%	4%	1%	0			0			300	330	730	360	210	ACTTAAAAAAATGTCCATGATGGAATATTCCCCTATC		4%	4%	2%						
TGFB2-NM_001135599.4eU2223-NP_001129071.1aa286TI	4	13%	7%	17%	2%	0			0			310	90	750	260	190	CAAGATTTGCAGGTATTGATGGCACCTCCACATATA	14%	16%	19%	4%						
TGFBI-NM_000358.3eU1345-NP_000349.1aa426PL	4	2%	1%	3%	0%	0			0			270	320	610	460	190	TGAATTCTGTATTCAAAGATGGAACCCCTCCAATTG	3%	3%	3%	2%						
TGOLN2-NM_001206844.2eU5684-3'UTR+4517	2	2%	0%	2%	0%	0			2	1%	0%	430	320	380	410	490	TTTTCCCAGTTAATAGATGGTCACTGTTTCCACAAT	2%	2%						1%	1%	
THADA-NM_001083953.2eU4435-NP_001077422.1aa1340SF	3	8%	0%	7%	0%	0			0			430	210	580	450	160	TCTACGCTTCCCCGATGGATGGTACTTCTTCTGCTC	7%		8%	8%						
THSD1-NM_018676.4eU738-NP_061146.1aa172TI	3	22%	13%	28%	11%	0			0			220	220	780	220	260	AGCCCAACATCGTAGTGGATGTCATCTTCACCAACA		21%	36%	10%						
TICAM1-NM_001385678.1eU1123-NP_001372607.1aa329SF	3	5%	1%	5%	2%	0			0			440	80	670	200	320	CACTCCAACTTTCTGTAGAAGATACCACCTCTCCAA	7%		4%	6%						
TIGAR-NM_020375.3eU2537-3'UTR+1665	3	58%	14%	58%	14%	0			2	9%	4%	340	280	800	280	150	TCCATTCCCACCATACTGAAGTCATCTTTCCACTTT	71%	43%	59%					12%	6%	
TIPRL-NM_152902.5eU880-NP_690866.1aa255PL	2	3%	1%	3%	1%	0			0			450	240	500	610	230	AGGAAGCAGTTTGTGAGAAGCTAATATTTCCAGAAA	2%		3%							
TJP2-NM_001170414.2eU1198-NP_001163885.1aa322HH	4	23%	12%	28%	5%	0			1	7%		300	160	520	560	310	GGGTCTGGCAACTAAAGATGGCAACCTTCACGAAGG	34%	28%	23%	6%						7%
TLNRD1-NM_022566.3eU2493-3'UTR+55	3	8%	5%	8%	5%	0			0			450	140	650	380	340	CCACCCCCAGACTAAAGGAAGATACTTACTCTCTGC	14%	6%	5%							
TMED8-NM_001346131.2eU3593-3'UTR+2559	2	25%	6%	25%	6%	0			0			250	210	770	250	580	GCACAAAATAGCTAAAAGAAGATATTTTCACTGTCT		29%	21%							
TMEM131L-NM_001131007.2eU3577-NP_001124479.1aa1180SF	3	8%	1%	8%	1%	0			0			430	210	780	180	390	TTCACAAAACATCTAGAGAAGACATGTTTTCTGAGA	9%	7%	8%							
TMEM260-NM_017799.4eU763-NP_060269.3aa216LL	3	14%	5%	16%	6%	0			0			190	420	680	420	390	TTTCAACTTTTAAAAAAGAAGGAACTCTCCCTGGGC		20%	12%	12%						
TMEM50A-NM_014313.4eU832-3'UTR+222	2	2%	1%	2%	1%	0			0			330	130	720	430	450	TAACTTATAAAATGTTAGAGGAAACTTTCACATGAA	3%	2%								
TMEM65-NM_194291.3eU2273-3'UTR+1006	4	54%	17%	61%	8%	3	12%	6%	3	30%	12%	230	70	910	180	330	TTTTTTTTCCCTCCAAAGATGTCATCTTCTCATCTG	61%	53%	70%	31%	6%	13%	18%	21%	43%	26%
TNC-NM_002160.4eU5468-NP_002151.2aa1719SL	4	34%	8%	38%	4%	3	3%	1%	3	13%	1%	280	210	860	330	310	CCATGGGCTCCCCAAAGGAAGTCATTTTCTCAGACA	42%	38%	35%	23%	3%	3%	4%	13%	13%	12%

TNC-XM_005251972.4eU5195-XP_005252029.1aa1628SL	3	38%	9%	38%	9%	0			0			280	210	860	330	310	CCATGGGCTCCCCAAAGGAAGTCATTTTCTCAGACA	29%	40%	46%							
TNC-XM_005251973.4eU4376-XP_005252030.1aa1355SL	3	53%	20%	53%	20%	0			1	50%		280	210	860	330	310	CCATGGGCTCCCCAAAGGAAGTCATTTTCTCAGACA	67%	30%	63%					50%		
TNC-XM_005251975.4eU3557-XP_005252032.1aa1082SL	4	36%	12%	42%	2%	0			2	25%	4%	280	210	860	330	310	CCATGGGCTCCCCAAAGGAAGTCATTTTCTCAGACA	44%	42%	41%	18%					27%	22%
TNFAIP3-NM_001270507.2eU3687-3'UTR+1039	2	3%	1%	3%	1%	0			0			390	200	690	320	390	TTCAAGATTATTTAAGTGAAGATATTTCTTCAGCTC	2%		3%							
TNFRSF9-NM_001561.6eU1280-3'UTR+372	3	26%	25%	36%	26%	0			0			220	220	730	420	250	GTTTTTTGTTTGGTAAAGATGGCATTTCACCATGTT	54%	18%		5%						
TOMM22-NM_020243.5eU189-NP_064628.1aa56PL	3	1%	1%	1%	1%	0			0			460	280	460	490	270	AGAGACTATGGGGCCTGACGGAGATGTTTCCGGAGA	1%	1%	2%							
TOMM5-NM_001001790.3eU161-NP_001001790.1aa32LL	3	3%	1%	3%	1%	0			0			270	220	720	340	280	GGATGTGATCTCCTCCATACGGAACTTTCTCATCTA	3%	2%	4%							
TOMM70-NM_014820.5eU903-NP_055635.3aa255Q*	4	12%	5%	14%	3%	0			2	2%	0%	220	0	770	250	220	AAGAATCGTGAACCTCTGATGCCATCTCCACAGTTT	12%	18%	13%	5%				2%	2%	
TOP2A-NM_001067.4eU2962-NP_001058.2aa953LF	4	13%	5%	16%	1%	0			0			550	80	780	260	340	ATGTTGAATGGCACCGAGAAGACACCTCCTCTCATA	15%	15%	17%	6%						
TOP3A-NM_000122.2_2614eU2088-NP_001307688.1aa554PL	4	10%	3%	12%	0%	0			0			210	150	810	280	390	CAGAGTTGGCCCAGCAAGAAGATATCTACCCAGCCA	12%	12%	11%	6%						
TOPORS-NM_001195622.2eU1561-NP_001182551.1aa471HY	2	3%	0%	3%		0			0			360	40	520	420	340	GATAGCGATGTTAGTAGATGCTCATCTCCACACTCT		3%		3%						
TOR1AIP1-NM_001267578.2eU711-NP_001254507.1aa165Q*	3	7%	2%	9%	1%	2	7%	5%	0			260	480	700	160	460	CATTCCTCTGAAGAGGATGAAGCATCTTCCCAAACT		9%	8%	5%	4%	10%				
TOR1AIP1-NM_015602.4eU711-NP_056417.2aa165Q*	3	12%	4%	14%	0%	1	10%		0			260	480	700	160	460	CATTCCTCTGAAGAGGATGAAGCATCTTCCCAAACT	14%	14%		7%			10%			
TP53BP2-NM_001031685.3eU1287-NP_001026855.2aa340PP	2	4%	2%	4%	2%	0			0			250	330	580	530	370	TCTACCAGTTTCATCTGATGGAAATCTTCCCCAGCA		2%	5%							
TPM3-NM_001043351.2eU965-3'UTR+119	3	1%	0%	1%	0%	0			3	27%	2%	390	270	510	550	420	GGCTGATCTTTAACTGGAAGGCTGCTTTCTCCTTTC	1%	2%		1%				26%	27%	29%
TPX2-NM_012112.5eU1068-NP_036244.2aa187PS	4	3%	1%	4%	2%	3	9%	2%	0			170	460	810	240	330	CAAGATACTGCTGAAAAGAATGCATCTTCCCCAGAG	3%	2%	5%	2%	7%	9%	11%			
TRA2A-NM_001282757.2eU1245-NP_001269686.1aa162PS	4	9%	3%	10%	1%	0			1	2%		390	250	510	400	260	GATTACCGATACAGAAGACGATCACCTTCTCCTTAT	11%	11%	9%	5%						2%
TRAF3-NM_001199427.2eU1743-3'UTR+41	4	15%	8%	18%	3%	0			0			320	250	820	210	180	GGGAGGTGGATTTAGCAGAAGGCAACTCCTCTGGGG	17%	16%	22%	4%						
TRAF3-NM_001199427.2eU3299-3'UTR+1597	4	32%	12%	38%	1%	0			0			230	270	900	210	350	CAGCCTGTGCCTGCCCAGATGGCATTTTCTCAACTC	38%	37%	39%	14%						
TRAM1-NM_001317804.2eU888-NP_001304733.1aa221LL	3	1%	0%	1%	0%	3	15%	1%	0			440	380	760	170	350	AGCAATGAAAAGTATCAGAAAGGATTTTCTCTGTGG	2%	1%	1%		13%	14%	16%			
TRAPPC14-NM_018275.5eU682-NP_060745.3aa153PL	3	10%	5%	13%	3%	0			0			350	140	830	370	250	CGATTGTGTCCACAGATGAGGTCATCTTCCCACTCA	10%	15%		4%						
TRIM14-NM_014788.4eU1531-3'UTR+168	4	2%	1%	2%	1%	0			2	5%	2%	220	390	710	140	340	CACGCCTACAGTGCTTTGAAGGTTTCCTCTCCTAGG	2%	3%	3%	1%				3%	7%	
TRIM22-NM_001199573.2eU1974-3'UTR+313	4	5%	2%	6%	2%	0			0			330	340	870	140	190	TCTCTCCTTGGCTTGTAGAAGGCATCTTGTCCCTAT	4%	5%	7%	2%						
TRIM24-NM_003852.4eU2628-NP_003843.3aa780HY	2	5%	0%	5%	0%	0			0			390	140	760	300	80	TGGTTGGATCCTTCCCAGAAGTCACCTCTTCATGTT		5%	5%							
TRIP12-NM_001284214.2eU2557-NP_001271143.1aa793AV	3	5%	1%	5%	1%	0			0			240	360	830	290	290	TGCCATGTTTACCAAAAGAAGGCATTTTTGCAGTTG	5%	5%	4%							
TRIP12-NM_001284215.2eU2431-NP_001271144.1aa751AV	2	8%	0%	8%	0%	0			0			240	360	830	290	290	TGCCATGTTTACCAAAAGAAGGCATTTTTGCAGTTG		9%	8%							
TRMT6-NM_001281467.2eU514-5'UTR-16	4	5%	1%	5%	1%	0			0			160	200	690	220	320	GCCATCATTACTGTTGTGAAGCCATCCACCCGTATT	6%	5%	3%	4%						
TRNP1-NM_001013642.3eU1358-3'UTR+579	4	7%	3%	9%	1%	0			0			290	170	660	260	250	GGGTCCCCATTTTAATAGATGTCATTGCTTCAAGTC	7%	10%	9%	4%						
TRUB2-NM_001329861.2eU698-NP_001316790.1aa220TM	4	2%	1%	3%	1%	0			1	3%		270	160	740	200	340	AAGTGCGGCGCACGCGCGACGGCTTCTTCACGCTAG	3%	3%	2%	1%						3%
TSC1-NM_000368.5eU2905-NP_000359.1aa896LL	2	9%	0%	9%	0%	0			0			230	300	850	180	330	AGAGCTAGAAAAAAACAGAAGCCATGTTCTCCAGCA		9%	9%							
TSN-NM_001261401.2eU1070-3'UTR+494	3	6%	1%	6%	1%	0			0			250	170	530	400	350	TTGATGTACTGATTGAGAAGTTCATTGTCTCGTTTG	6%	5%	7%							
TSPAN15-NM_001351263.2eU1369-3'UTR+615	2	16%	2%	16%	2%	0			0			330	220	630	380	410	GTTTCTGACTAATCAAAGCTGGTATTTCCCCGCATG	14%	18%								
TTC12-NM_001318533.2eU975-NP_001305462.1aa308SS	4	12%	2%	12%	2%	0			3	60%	11%	430	430	710	390	310	TGACAACGAGGTCATAAGAAGGTGTTTTTCCACAGC	15%	11%	11%	11%				50%	71%	60%
TTC1-NM_001282500.2eU350-NP_001269429.1aa90SF	2	2%	1%	2%	1%	0			0			460	180	650	320	240	AGAACAAATCTAATGAAGATGTGAATTCCTCTGAAC		2%	1%							
TTC39B-NM_001168339.1eU2107-3'UTR+27	2	6%	1%	6%	1%	0			0			430	350	660	550	210	TTGATCAGAACTTGAAGGATGGAATTTTTCCTCAAT		5%	6%							
TTF1-NM_001205296.2eU758-NP_001192225.1aa177Q*	4	7%	4%	8%	4%	0			3	69%	5%	300	150	730	350	390	GAAGAAGTGATTCTGAAGAAGATGTCTCCCCAGGAG	12%	4%	8%	4%				74%	67%	65%
TUFM-NM_001365360.2eU1492-3'UTR+129	2	2%	0%	2%	0%	0			0			340	170	510	630	390	CAGCAGAGGGCAGCTAGATGGACATTTCCCCTGCTC	2%	2%								
TXNDC12-NM_015913.4eU751-3'UTR+137	3	3%	1%	3%	1%	0			3	51%	5%	350	290	650	290	210	CATTCCTACCTACACTGGAAGGAGCGCTCTCACTGT	3%	3%	2%					48%	49%	57%
TXNDC5-NM_001145549.4eU1836-3'UTR+535	4	7%	2%	8%	1%	0			0			250	150	720	270	330	AAAAACCCACACCTCTGGAAGATACCTTCACGGCCG	9%	8%	7%	5%						
TXNIP-NM_006472.6eU85-5'UTR-230	4	3%	1%	3%	1%	0			2	3%	0%	320	300	810	310	390	CCAGCAATTGGGGGAAAGAAGGCTTTTTCTCTGAAT	2%	4%	3%	3%				3%		3%
TXNL1-NM_004786.3eU847-NP_004777.1aa232PL	3	2%	1%	2%	1%	0			0			280	350	720	330	250	AGGATGATATTAAAGAAGATGGCATTGTTCCACTTC	2%	2%	1%							
TXNRD1-NM_001093771.3eU359-NP_001087240.1aa112SL	3	6%	3%	8%	2%	0			0			260	290	680	290	210	AGGACGGTCGGGCCCTGGAAGGAACGCTCTCGGAAT	9%		6%	2%						
TXNRD1-NM_003330.4eU346-NP_003321.3aa14SL	4	7%	3%	9%	1%	0			0			260	290	680	290	210	AGGACGGTCGGGCCCTGGAAGGAACGCTCTCGGAAT	8%	10%	8%	2%						
TXNRD1-NM_182729.3eU109-5'UTR-117	3	4%	0%	4%	0%	0			0			260	290	680	290	210	AGGACGGTCGGGCCCTGGAAGGAACGCTCTCGGAAT	4%	4%	4%							
UBA3-NM_001363861.1eU1252-NP_001350790.1aa411PL	2	2%	1%	2%	1%	0			0			350	70	640	300	100	AAGAACTGGCGGTTGCTGATGTCACCACCCCACAGA	2%	1%								
UBA6-NM_018227.6eU4922-3'UTR+1727	4	10%	4%	12%	4%	0			2	8%	4%	340	430	750	450	290	AAAAGGACTTTTGCAAAGAAGGCTTTTTTCCACGTT	15%	12%	7%	7%				5%	11%	
UBAP1-NM_001171201.1eU1586-NP_001164672.1aa526Q*	4	2%	1%	2%	1%	0			3	42%	2%	390	210	610	440	130	TGTTCAGAAGAAAAGATGATGGAGTTTCTTCAGTTA	3%	2%	2%	3%				40%	44%	42%
UBB-NM_001281716.2eU377-NP_001268645.1aa38PL	4	28%	7%	31%	1%	3	1%	0%	3	4%	0%	210	450	680	440	340	CCAAGATCCAGGATAAGGAAGGCATTCCCCCCGACC	32%	32%	30%	18%	1%	1%	1%	4%	4%	4%
UBB-NM_001281716.2eU605-NP_001268645.1aa114PL	4	21%	6%	24%	3%	3	1%	0%	3	4%	0%	280	450	700	330	260	CCAAGATCCAGGATAAAGAAGGCATCCCTCCCGACC	27%	25%	21%	13%	1%	2%	1%	4%	4%	4%
UBB-NM_001281716.2eU606-NP_001268645.1aa114PP	4	1%	1%	2%	0%	0			3	3%	0%	230	280	450	700	330	CAAGATCCAGGATAAAGAAGGCATCCCTCCCGACCA	2%	2%	1%	1%				3%	2%	3%
UBB-NM_001281716.2eU833-NP_001268645.1aa190PL	4	46%	13%	52%	3%	3	4%	0%	3	12%	1%	210	390	770	290	360	CCAAGATCCAAGATAAAGAAGGCATCCCCCCCGACC	55%	53%	49%	27%	4%	4%	4%	11%	12%	12%
UBB-NM_001281717.1eU790-NP_001268646.1aa190PL	4	51%	23%	62%	5%	0			2	16%	1%	210	390	770	290	360	CCAAGATCCAAGATAAAGAAGGCATCCCCCCCGACC	57%	67%	63%	18%					17%	16%
UBB-NM_001281718.1eU294-NP_001268647.1aa38PL	4	21%	7%	24%	3%	0			0			210	450	680	440	340	CCAAGATCCAGGATAAGGAAGGCATTCCCCCCGACC	21%	28%	24%	12%						
UBB-NM_001281719.1eU292-NP_001268648.1aa38PL	4	24%	10%	28%	8%	0			1	10%		210	450	680	440	340	CCAAGATCCAGGATAAGGAAGGCATTCCCCCCGACC	35%	30%	20%	13%					10%	
UBB-NM_001281720.2eU372-NP_001268649.1aa114PL	4	28%	7%	31%	4%	1	3%		3	6%	1%	280	450	700	330	260	CCAAGATCCAGGATAAAGAAGGCATCCCTCCCGACC	36%	29%	29%	18%	3%			5%	7%	5%
UBB-NM_001281720.2eU600-NP_001268649.1aa190PL	4	39%	11%	42%	11%	0			0			210	390	770	290	360	CCAAGATCCAAGATAAAGAAGGCATCCCCCCCGACC	37%	55%	35%	29%						
UBB-NM_018955.4eU213-NP_061828.1aa38PL	4	27%	6%	30%	0%	3	1%	0%	3	3%	0%	210	450	680	440	340	CCAAGATCCAGGATAAGGAAGGCATTCCCCCCGACC	30%	30%	31%	18%	1%	1%	1%	4%	3%	4%
UBB-NM_018955.4eU441-NP_061828.1aa114PL	4	19%	9%	22%	8%	0			0			280	450	700	330	260	CCAAGATCCAGGATAAAGAAGGCATCCCTCCCGACC	27%	27%	12%	11%						
UBB-NM_018955.4eU669-NP_061828.1aa190PL	3	56%	21%	56%	21%	0			0			210	390	770	290	360	CCAAGATCCAAGATAAAGAAGGCATCCCCCCCGACC	33%	60%	75%							
UBC-NM_021009.7eU1092-NP_066289.3aa342PL	4	5%	1%	6%	1%	0			3	1%	0%	320	350	660	410	180	CAAAGATCCAAGACAAGGAAGGCATCCCTCCTGACC	6%	6%	5%	4%				1%	1%	1%
UBC-NM_021009.7eU1320-NP_066289.3aa418PL	4	5%	1%	5%	0%	3	0%	0%	3	1%	0%	320	350	660	410	180	CAAAGATCCAAGACAAGGAAGGCATCCCTCCTGACC	6%	5%	5%	3%	0%	1%	0%	1%	1%	1%
UBC-NM_021009.7eU1548-NP_066289.3aa494PL	4	4%	1%	4%	1%	2	0%	0%	3	1%	0%	320	350	660	410	180	CAAAGATCCAAGACAAGGAAGGCATCCCTCCTGACC	5%	4%	4%	3%	0%	0%		1%	1%	1%
UBC-NM_021009.7eU1776-NP_066289.3aa570PL	4	4%	1%	4%	0%	0			3	1%	0%	320	350	660	410	180	CAAAGATCCAAGACAAGGAAGGCATCCCTCCTGACC	5%	4%	4%	2%				1%	1%	1%
UBC-NM_021009.7eU180-NP_066289.3aa38PL	4	17%	3%	19%	1%	3	1%	0%	3	3%	0%	320	350	660	410	180	CAAAGATCCAAGATAAGGAAGGCATCCCTCCTGACC	19%	19%	18%	12%	1%	1%	1%	2%	3%	3%
UBC-NM_021009.7eU2004-NP_066289.3aa646PL	4	4%	1%	4%	0%	0			3	0%	0%	320	350	660	410	180	CAAAGATCCAAGATAAGGAAGGCATCCCTCCTGATC	4%	4%	4%	2%				0%	0%	1%
UBC-NM_021009.7eU408-NP_066289.3aa114PL	4	3%	1%	3%	0%	0			0			320	410	610	480	240	CAAAGATCCAGGACAAGGAAGGCATTCCTCCTGACC	4%	3%	3%	1%						
UBC-NM_021009.7eU636-NP_066289.3aa190PL	4	3%	1%	4%	0%	0			1	0%		320	410	610	480	240	CAAAGATCCAAGATAAGGAAGGCATTCCTCCTGATC	4%	4%	3%	3%				0%		
UBC-NM_021009.7eU864-NP_066289.3aa266PL	4	5%	1%	5%	0%	0			3	0%	0%	320	410	610	480	240	CAAAGATCCAAGACAAGGAAGGCATTCCTCCTGACC	5%	5%	5%	3%				0%	0%	0%
UBE2E3-NM_001278554.2eU1115-3'UTR+46	4	10%	4%	12%	2%	0			3	5%	0%	330	240	990	140	290	TGCAGTGTGAAGGAGCAGAAGGCATCTTCTCACTGT	13%	10%	14%	5%				5%	5%	6%
UBE2K-NM_001111112.2eU2521-3'UTR+1855	2	6%	2%	6%	2%	0			3	9%	4%	290	280	570	560	190	GATTGTGTGAAAATGTGGATGGTTTTTCTCCAGTGT		5%	7%					12%	5%	9%
UBE3C-NM_014671.3eU3560-NP_055486.2aa1071LL	4	2%	1%	2%	1%	0			0			270	280	760	220	220	TGACGAGACACTTTTGCGAAGTAAACTTCTCTATGC	3%	2%	2%	1%						
UBOX5-NM_001267584.2eU131-5'UTR-12	4	34%	14%	39%	10%	1	8%		2	20%	7%	210	200	800	160	420	GCTGCTTCTGATGCTTGGAAGATATCCTCTCAGCCA	38%	50%	31%	17%	8%				25%	15%
UBXN4-NM_014607.4eU2721-3'UTR+1119	4	8%	4%	10%	2%	0			0			320	210	820	410	350	TTATTTTGTAATGGGAGGAAGAAATTTTCTCAGAGC	12%	8%	9%	2%						
UHMK1-NM_001184763.1eU3298-3'UTR+2183	3	4%	0%	4%	0%	0			0			210	110	540	430	380	ATGCTGCTAACATCTTGATGCCAATCTTCACAGCAT		4%	4%	3%						
UHMK1-NM_001184763.1eU7901-3'UTR+6786	4	18%	6%	21%	2%	2	4%	1%	2	2%	0%	280	300	780	330	450	ATGTGTGTCAGTACCAAAAAGTTATTTTCTCAAATC	23%	20%	20%	9%	3%	5%		2%	2%	
UQCRC2-NM_003366.4eU95-NP_003357.2aa11SL	2	3%	1%	3%	1%	0			1	2%		230	270	630	280	400	TGAAGCTACTAACCAGAGCCGGCTCTTTCTCGAGAT	4%	2%								2%
USP16-NM_001001992.2eU2210-NP_001001992.1aa687LF	4	3%	1%	3%	1%	0			0			270	210	710	250	340	ACCAATGCCAAAAAGCAGATGCTAATTTCTCTTGCT	3%	4%	3%	3%						
USP28-NM_001301029.2eU1028-NP_001287958.1aa265Q*	2	5%	0%	5%	0%	0			0			290	150	720	360	310	GAGAAAATTCACAATAAGCTGGAATTTCCTCAGATT	5%		5%							
USP39-NM_001256725.2eU603-NP_001243654.1aa198TI	4	2%	0%	2%	0%	0			0			340	220	550	510	370	ATATCACGTATGTGTTGAAGCCCACTTTCACAAAGC	3%	2%	2%	2%						
USP48-NM_001032730.3eU1727-3'UTR+77	4	17%	5%	20%	3%	0			0			360	260	760	380	280	TGTTCACAAATGTATATGAAGAAACTTTCTCAAACT	22%	17%	20%	10%						
USP5-NM_001098536.2eU1271-NP_001092006.1aa414PL	3	2%	1%	2%	1%	0			0			300	220	680	360	310	AACAGAAGGAAGTTCAAGATGGCATTGCCCCTCGGA	3%	1%	2%							

VAMP3-NM_004781.4eU673-3'UTR+282	2	2%	0%	2%	0%	0	0			330	70	750	220	190	C	A	G	A	G	T	G	C	T	A	T	A	A	T	C	T	A	G	A	T	G	T	A	A	T	G	T	T	G	T	C	A	C	T	A	A	2%	2%					
VCAN-NM_001126336.3eU3296-3'UTR+1042	4	54%	5%	52%	3%	0	0			260	250	690	390	330	A	C	T	G	A	T	T	T	A	A	T	T	T	A	T	T	G	G	A	T	G	T	T	A	T	T	T	T	C	C	C	T	A	A	G	A	50%	56%	51%	60%			
VCP-NM_001354927.2eU2170-NP_001341856.1aa568TI	4	6%	3%	7%	0%	0	0			270	140	760	290	260	A	G	A	T	C	C	T	G	A	C	A	G	A	A	A	T	G	G	A	T	G	G	C	A	T	G	T	C	C	A	C	A	A	A	A	A	7%	7%	8%	2%			
VDAC1-NM_003374.3eU1098-3'UTR+159	4	5%	2%	6%	1%	0	0			270	250	630	310	250	A	G	T	T	G	A	T	T	C	A	G	C	T	T	T	A	A	G	A	T	G	T	A	C	C	C	T	T	C	C	A	G	A	G	G	5%	5%	7%	2%			
VIM-XM_006717500.2eU760-XP_006717563.1aa204Q*	2	27%	8%	21%		0	1	27%		310	480	240	190	410	C	T	T	C	A	G	A	G	A	G	G	G	A	A	G	C	C	G	A	A	A	A	C	A	C	C	C	T	G	C	A	A	T	C	T		21%		33%		27%		
VIRMA-NM_015496.5eU5081-NP_056311.2aa1687RC	2	2%	0%	2%		0	0			210	220	740	300	470	C	C	A	C	T	C	A	A	A	G	T	A	T	C	A	C	A	G	A	A	G	A	T	T	C	T	T	C	C	C	G	T	G	G	T			2%	3%			
VKORC1L1-NM_001284342.3eU4978-3'UTR+4146	2	7%	1%	6%		0	3	76%	12%	150	270	630	260	340	T	G	T	A	G	A	A	G	T	T	A	C	C	T	G	T	G	G	A	A	G	T	T	G	T	G	C	T	C	C	C	A	T	T	A	T		6%		7%		63%	85%	82%
VPS50-NM_001257998.2eU3752-3'UTR+727	2	23%	7%	23%	7%	0	0			420	270	740	320	180	T	G	A	A	A	A	G	T	A	A	T	T	T	C	A	T	T	G	A	G	G	G	T	A	C	C	T	T	T	T	C	A	A	T	G	C	29%	18%					
VPS72-NM_001271087.2eU1221-3'UTR+17	2	2%	0%	2%	0%	0	0			330	80	660	270	300	T	T	G	T	C	A	T	T	A	A	A	T	G	A	A	G	A	G	A	T	G	T	C	T	A	G	T	C	C	T	C	A	G	A	A	A	2%	2%					
VRK3-NM_001025778.2eU622-NP_001020949.1aa151SL	2	3%	1%	3%	1%	0	0			450	190	550	470	340	G	T	G	A	C	T	C	A	G	G	A	C	C	A	C	A	G	A	A	G	C	A	A	A	A	G	T	T	C	T	C	A	C	T	C	A		2%	4%				
WARS1-NM_004184.4eU610-NP_004175.2aa158LL	4	3%	1%	3%	0%	0	0			270	210	780	290	250	G	A	T	G	C	C	T	A	T	G	A	A	A	A	T	A	A	G	A	A	G	C	C	A	T	T	T	T	A	T	C	T	G	T	A	C	3%	3%	4%	1%			
WASHC2A-NM_001005751.3eU3951-NP_001005751.1aa1300SF	4	15%	4%	17%	3%	0	2	2%	0%	270	170	820	220	330	T	A	T	T	T	G	A	T	G	A	T	G	A	T	A	T	G	G	A	T	G	A	C	A	T	C	T	T	C	T	C	C	T	C	T	G	16%	14%	20%	10%		2%	2%
WASHC2C-NM_001169106.2eU3765-NP_001162577.1aa1238SF	4	15%	4%	16%	3%	0	2	3%	0%	270	220	820	220	330	T	A	T	T	T	G	A	T	G	A	T	G	A	T	A	T	G	G	A	T	G	A	C	A	T	C	T	T	C	T	C	C	A	C	T	G	18%	13%	18%	10%	3%	3%	
WBP1-NM_012477.4eU698-NP_036609.1aa178SF	3	5%	2%	5%	2%	0	3	43%	12%	470	330	670	360	290	T	T	G	A	A	G	G	A	A	C	A	A	A	T	G	T	G	G	A	A	G	G	T	G	T	T	T	C	C	T	C	C	C	A	C	C	7%	4%	4%		39%	33%	57%
WDR75-NM_001303096.2eU2126-NP_001290025.1aa627PP	4	5%	1%	5%	1%	0	3	49%	1%	560	220	540	570	370	C	A	A	A	C	A	G	C	T	G	C	T	A	G	C	A	G	A	A	G	A	A	A	G	T	C	T	T	C	C	C	A	C	A	A	C	5%	6%	4%	4%	48%	49%	51%
XRCC1-NM_006297.3eU1939-NP_006288.2aa624HY	4	21%	5%	24%	3%	0	0			420	140	740	330	300	A	G	T	T	G	C	A	A	T	G	A	G	A	A	G	C	A	G	A	A	G	T	T	A	C	T	T	C	C	T	C	A	C	C	A	G	26%	20%	24%	14%			
XRN2-NM_001317960.1eU2467-NP_001304889.1aa809PL	4	9%	3%	10%	2%	0	1	1%		230	390	720	370	320	A	G	T	T	T	T	C	T	T	T	G	G	A	T	G	A	A	G	A	A	G	C	C	A	T	T	C	T	T	C	C	A	G	A	T	C	12%	10%	9%	5%		1%	
YEATS2-NM_001351369.2eU6049-3'UTR+1708	4	3%	1%	3%	1%	0	0			490	230	770	260	190	T	G	A	G	G	G	C	T	G	C	A	A	G	T	A	C	A	G	A	A	G	G	A	A	T	C	T	A	T	T	C	T	C	A	G	C	3%	3%	2%	4%			
YIPF3-NM_015388.4eU556-NP_056203.2aa146PL	4	28%	11%	33%	3%	0	2	8%	0%	360	360	560	490	260	C	C	A	T	G	A	T	C	C	C	T	A	T	C	A	A	G	A	T	G	G	T	C	A	A	C	T	T	C	C	C	C	C	A	G	A	37%	32%	31%	12%	8%	8%	
ZBTB1-NM_001123329.2eU1202-NP_001116801.1aa336TI	2	6%	2%	6%	2%	0	0			320	250	620	260	470	T	T	A	T	T	A	A	G	A	T	G	G	A	G	C	C	A	G	A	G	A	T	A	T	T	C	C	T	A	C	A	G	A	T	G	8%	5%					
ZBTB40-NM_001083621.2eU1266-NP_001077090.1aa252SL	4	10%	4%	11%	3%	0	3	26%	4%	320	240	830	180	310	A	T	T	T	T	C	T	T	C	T	A	G	A	A	A	A	T	G	A	A	G	G	T	G	T	C	T	T	C	T	C	A	G	A	T	G	14%	8%	12%	6%	30%	22%	27%
ZC3HAV1-NM_001363491.2eU3235-NP_001350420.1aa949SF	2	3%	0%	3%	0%	0	0			450	160	730	260	190	G	A	A	T	T	T	A	C	T	T	T	G	C	A	A	A	A	G	A	T	G	C	C	A	T	C	T	A	T	T	C	C	C	A	C	A		2%	3%				
ZC3HAV1-NM_001363491.2eU4598-3'UTR+1134	4	13%	2%	14%	1%	0	3	10%	3%	230	300	860	270	470	A	T	T	A	A	T	A	T	G	A	T	T	A	C	A	G	A	G	A	A	G	G	C	T	T	T	T	C	T	C	A	G	G	T	C	15%	15%	13%	10%	8%	10%	14%
ZC3HC1-NM_001282190.2eU1058-NP_001269119.1aa314SF	4	5%	2%	6%	1%	0	0			370	230	710	420	200	T	G	A	T	G	A	C	C	C	G	G	A	G	C	C	A	G	G	A	T	G	C	C	A	C	T	T	T	C	T	C	C	C	C	A	G	5%	7%	4%	3%			
ZDHHC12-NM_001318015.2eU849-NP_001304944.2aa272SL	2	3%	1%	3%	1%	0	0			430	80	760	250	250	G	C	A	A	C	A	C	C	A	C	C	A	C	C	T	G	G	G	A	A	T	T	C	A	T	C	T	C	C	T	C	A	C	A	C	C			2%				
ZDHHC20-NM_001286638.2eU329-NP_001273567.1aa12TI	2	19%	13%	19%	13%	0	0			290	210	490	500	480	T	T	G	T	A	T	G	G	T	C	C	T	A	T	T	G	G	A	T	G	A	C	A	A	T	T	T	T	C	A	C	A	T	C	T	C		28%	11%				
ZDHHC20-NM_001330059.2eU356-NP_001316988.1aa75TI	4	11%	7%	13%	8%	0	0			290	210	490	500	480	T	T	G	T	A	T	G	G	T	C	C	T	A	T	T	G	G	A	T	G	A	C	A	A	T	T	T	T	C	A	C	A	T	C	T	C	22%	10%	7%	5%			
ZDHHC4-NM_001134387.2eU866-NP_001127859.1aa146PL	4	13%	5%	15%	2%	0	0			380	370	710	320	110	A	T	G	T	T	T	A	T	G	A	A	T	T	T	G	A	T	G	A	A	G	T	G	A	T	G	T	T	T	C	C	A	A	A	G	A	15%	17%	13%	6%			
ZNF148-NM_001348424.1eU3186-NP_001335353.1aa785PS	3	14%	3%	14%	3%	0	0			210	170	780	220	420	A	A	T	G	A	T	A	A	T	A	G	A	G	C	T	G	G	G	A	T	G	A	C	A	T	C	T	T	C	A	C	C	T	G	A	T	10%	17%	14%				
ZNF211-NM_001265597.3eU693-NP_001252526.1aa172Q*	3	13%	3%	11%	2%	0	0			260	260	620	330	580	T	T	C	A	G	G	A	C	T	T	C	C	A	A	A	G	A	A	G	G	G	T	T	C	A	T	C	T	T	C	C	C	A	G	A	A	T		10%	13%	16%			
ZNF211-NM_001265600.3eU308-NP_001252529.1aa46Q*	2	13%	4%	16%		0	0			260	260	620	330	580	T	T	C	A	G	G	A	C	T	T	C	C	A	A	A	G	A	A	G	G	G	T	T	C	A	T	C	T	T	C	C	C	A	G	A	A	T			16%	10%			
ZNF236-NM_001306089.2eU1063-NP_001293018.1aa338Q*	2	36%	20%	36%	20%	0	0			390	110	680	300	140	A	C	G	G	C	C	A	C	A	C	T	T	T	T	C	A	G	A	C	G	T	T	A	C	C	T	C	T	T	C	A	A	C	A	G		50%	21%				
ZNF367-NM_153695.4eU2549-3'UTR+1158	3	2%	0%	2%	0%	0	0			290	390	750	390	170	A	A	C	T	T	G	T	G	T	G	G	T	G	G	T	T	G	A	A	G	C	C	A	T	T	T	T	T	C	C	A	A	A	T	A	2%	2%	3%				
ZNF44-NM_001164276.2eU760-NP_001157748.1aa191HY	3	5%	0%	6%	0%	0	0			300	80	800	140	420	T	G	T	C	A	T	G	A	A	T	A	T	G	C	A	G	A	G	A	A	G	T	C	A	T	A	T	A	C	A	C	A	T	A	A	G		6%	5%	5%			
ZNF566-NM_001145343.1eU1270-NP_001138815.1aa379Q*	3	11%	1%	11%	1%	0	2	9%	1%	360	240	820	280	290	G	A	A	T	G	T	A	A	G	A	T	A	T	G	T	G	G	G	A	A	G	G	C	T	T	A	T	T	C	T	C	A	G	A	G	T	12%	11%	10%		8%	10%	
ZNF566-NM_001145343.1eU4734-3'UTR+3339	2	29%	7%	29%	7%	0	1	23%		240	350	790	350	370	T	T	T	G	T	A	T	T	T	T	T	A	G	T	A	G	A	G	A	C	G	G	C	A	T	T	T	T	T	C	A	T	G	T	T		33%	24%			23%		
ZNF623-NM_001082480.2eU2469-3'UTR+629	3	14%	3%	14%	3%	0	1	7%		310	240	710	390	400	C	G	C	C	T	T	T	G	T	T	C	T	T	G	T	T	G	A	A	G	G	G	T	C	T	C	T	T	C	T	C	A	G	C	T	A	11%	13%	17%				7%
ZNF644-NM_016620.4eU1321-3'UTR+753	3	6%	4%	6%	4%	0	0			210	130	670	390	410	C	C	T	A	C	T	T	T	G	T	C	A	A	C	A	A	A	G	A	T	G	C	T	A	T	T	T	A	C	C	C	T	T	T	A	C	11%	4%	4%				
ZNF707-NM_001100598.2eU1042-NP_001094068.1aa276LL	2	5%	1%	4%		0	0			280	190	560	310	510	G	A	A	A	G	C	C	T	T	C	A	A	G	C	A	G	A	A	G	T	C	C	A	A	C	C	T	T	C	T	C	A	G	A	C	A	4%			5%			
ZNF761-NM_001008401.4eU461-NP_001008401.3aa5Q*	2	5%	0%	5%	0%	0	0			230	220	780	350	390	A	G	A	G	C	A	A	A	G	G	A	G	T	C	A	G	G	G	A	T	G	G	C	T	T	T	T	T	C	T	C	A	G	G	G	T		5%	6%				
ZNF787-NM_001002836.4eU1605-3'UTR+322	2	2%	0%	2%	0%	0	0			290	240	650	600	430	G	A	C	C	A	G	G	C	C	C	C	A	A	G	C	G	G	A	A	G	G	C	C	A	T	T	T	T	C	C	C	T	G	C	T	C		2%	2%				
ZNF816-NM_001031665.4eU1726-NP_001026835.1aa469Q*	3	12%	4%	12%	4%	0	0			290	240	710	270	140	G	G	C	A	G	G	A	G	T	T	T	C	A	G	T	C	G	G	A	A	G	T	C	A	T	C	C	C	T	T	C	A	A	T	A	C	9%	10%	16%				
ZNF93-NM_031218.4eU2568-3'UTR+562	2	8%	1%	8%	1%	0	0			460	90	820	300	190	T	C	A	T	C	A	C	T	A	C	A	A	A	T	T	C	A	G	A	G	G	G	C	A	T	C	T	C	A	T	C	A	C	C	C	T		9%	7%				
ZSCAN12-NR_028077.2eU3108-ncr	3	16%	4%	16%	4%	0	0			240	440	700	350	310	A	A	G	A	A	A	A	G	G	A	A	A	T	G	T	T	A	G	A	A	G	T	T	A	T	T	T	T	T	C	C	C	T	T	C	C	17%	19%	11%				
ZSCAN18-NM_001145542.1eU2189-3'UTR+458	3	7%	2%	7%	2%	0	0			210	150	720	140	270	C	T	T	T	T	C	G	T	A	C	T	T	G	G	C	G	T	G	A	T	G	T	C	A	A	C	T	T	C	A	C	T	T	C	T	A		9%	9%				
ZUP1-NM_001361190.2eU280-5'UTR-147	2	8%	1%	8%	1%	0	0			350	230	740	280	70	A	T	A	G	T	A	C	T	T	T	A	A	A	A	C	A	T	G	A	A	G	G	C	T	T	C	T	A	T	T	C	A	G	A	G	A		9%	8%				

B) PPR56_S7TD>TN

>total: 323

Offtarget blue > same position in gene	Rep. 56-N	%CU 56-N-4	STABW 56-N-4	%CU 56-N-3	STABW 56-N-3	Rep. 56-S7	%CU 56 S7	STABW 56-S7	Rep. 56-S4	%CU 56-S4	STABW 56-S4	PPR56 S7 Scoring -2	-1	Match	+1	+2	Binding region	%editing in individual replicates PPR56-native %IMR1	%IMR2	%IMR3	%ELIM1	PPR56-S7mut %I6-2	%I7	%I8	PPR56-S4mut %I1-2	%I3	%I4
ACAD9-NM_014049.5eU236-NP_054768.2aa55PL	1	3%		3%		**2**	**8%**	**1%**	3	38%	1%	340	410	**530**	680	520	T A G G C A A A A T C A A G A A G A A A G A A G T T T T C C C A T T T C		3%			**8%**	**9%**		38%	39%	39%
ACIN1-NM_001164814.1eU1604-NP_001158286.1aa426PS	0					**3**	**2%**	**1%**	0			270	420	**860**	190	330	C C A C C T T T A C T A A C A A A G G A A G C A T C T T C T C C A C C A					**2%**	**2%**	**3%**			
ADAM9-NM_003816.3eU2489-NP_003807.1aa800Q*	1	1%		1%		**3**	**14%**	**3%**	0			250	190	**840**	130	400	C C A C C T C C A C C A C A A C C G A A A G T A T C A T C T C A G G G A			1%		**11%**	**17%**	**15%**			
ADAR-NM_001025107.3eU4034-3'UTR+251	4	36%	13%	42%	2%	**2**	**2%**	**0%**	3	2%	0%	340	210	**700**	310	340	A A G A G G C A G A A A C C T A A G A A G T T A T C T T T T C T T T C T	45%	41%	40%	16%	**1%**		**2%**	3%	2%	2%
ADAR-NM_001025107.3eU953-5'UTR-36	0					**3**	**4%**	**2%**	0			300	120	**790**	210	320	C A G G T T T G G A A C C T G A A G A C A G C A A C T C C A C A T C T G					**5%**	**6%**	**2%**			
AGFG1-NM_001135187.2eU1863-NP_001128659.1aa533Q*	1	9%		9%		**3**	**54%**	**19%**	3	10%	3%	310	220	**820**	230	480	G C A G C T T T C C C T C A A C A G A C A G C T T T T T C T C A A C A G		9%			**37%**	**50%**	**75%**	7%	9%	14%
AGFG1-NM_001135189.2eU1671-NP_001128661.1aa469Q*	4	5%	2%	6%	1%	**3**	**51%**	**7%**	2	4%	1%	310	220	**820**	230	480	G C A G C T T T C C C T C A A C A G A C A G C T T T T T C T C A A C A G	7%	6%	4%	3%	**51%**	**57%**	**43%**	4%		3%
AGO2-NM_001164623.3eU6412-3'UTR+3807	0					**2**	**12%**	**5%**	0			300	300	**760**	430	500	A C C T A A T G G A T A T G A T A G A A A T T A T T T C C C C A A C T T					**8%**		**15%**			
AIDA-NM_022831.4eU2690-3'UTR+1595	4	14%	5%	16%	3%	**2**	**2%**	**0%**	0			270	350	**560**	330	430	G C T C T T C A A G G A G C A A G A G G C G C A T T T C T C C G T G T	19%	13%	16%	7%	**2%**		**2%**			
AK1-NM_001318121.1eU691-NP_001305050.1aa184SF	0					**3**	**5%**	**2%**	3	6%	3%	500	210	**740**	180	360	A C G C T G A G G G C T C C G T G G A C A G T G T C T T C T C C A G G					**3%**	**6%**	**5%**	3%	10%	5%
AKAP13-NM_006738.6eU2564-NP_006729.4aa786SF	0					**2**	**15%**	**8%**	0			490	170	**750**	220	430	A C C A G G C A G T A A T A T C A G A C A G T A C T T T C T C T C T G G						**9%**	**20%**			
ALG3-NM_001006941.2eU1057-NP_001006942.1aa270SL	0					**3**	**4%**	**0%**	0			410	190	**790**	270	340	G G T G G C A C A G G A C A G G G G A A A G T A T C T T G T C G C T G C					**4%**	**5%**	**4%**			
AMOTL2-NM_001278683.1eU2507-NP_001265612.1aa797TI	0					**2**	**3%**	**0%**	0			340	140	**740**	220	320	A G A C T G A G G G C C C C C C A G A C A G C A C C T C C A C C T G C C					**3%**		**3%**			
ANKFY1-NM_001257999.3eU5295-3'UTR+1542	0					**2**	**2%**	**0%**	3	8%	2%	440	40	**630**	250	320	T T G T T C A T T C T T T T C T G G A T A G T G T G T C C T C T G T A T					**2%**	**3%**		6%	8%	10%
ANKRD33B-NM_001164440.2eU6171-3'UTR+4288	3	6%	2%	6%	2%	**3**	**19%**	**6%**	0			230	190	**600**	400	240	T A G T G A A T T T C A A G T T G A C A G G T A C C T T C T C A G G G A	7%	8%	4%		**26%**	**17%**	**14%**			
ANXA7-NM_001156.5eU448-NP_001147.1aa134Q*	0					**3**	**10%**	**2%**	3	20%	3%	310	280	**480**	400	440	G G T G G C T T T C C T G G A G G A C A G A T G C C T T C T C A G T A T					**11%**	**7%**	**11%**	16%	22%	22%
APBB1IP-NM_019043.4eU2547-3'UTR+229	3	15%	9%	15%	9%	**3**	**29%**	**5%**	0			210	220	**730**	370	400	G T A T T T T A A C C T A A A T G G A A T G T A T C T T C C C T T C C A	15%	25%	6%		**34%**	**25%**	**27%**			
APBB2-NM_001166050.2eU2984-3'UTR+153	0					**2**	**8%**	**1%**	0			410	230	**690**	350	250	T A A C C A A G C A G T G T T A G A C A A G C A T G T T C T C T C G T C					**8%**		**9%**			
APEH-NM_001640.4eU1700-NP_001631.3aa550SF	0					**3**	**9%**	**4%**	0			350	260	**790**	160	370	C C A C G G G C T T T G G C C A G G A C A G C A T C C T C T C C C T C C					**12%**	**5%**	**9%**			
ASXL2-NM_001369346.1eU2451-NP_001356275.1aa777PS	0					**3**	**9%**	**2%**	0			400	340	**880**	240	390	A G T A G T T G C A G A C A G G A G A A A G C A C C T T C T C C A A C A					**9%**	**11%**	**7%**			
ATAD2-NM_014109.4eU2266-NP_054828.2aa726HY	0					**2**	**2%**	**1%**	0			380	100	**760**	240	550	A T T T T A G A A G C C C T G C A G A G A G T A T T T C C A C A T G C A						**2%**	**1%**			
ATF3-NM_001030287.4eU1316-3'UTR+689	0					**3**	**2%**	**1%**	0			280	290	**710**	410	430	C T T G T C A G C A A G A G G A G G A C A G A A T T C T C C C A G C G T					**1%**	**3%**	**1%**			
ATP2B1-NM_001001323.2eU2726-NP_001001323.1aa786SL	0					**2**	**5%**	**1%**	0			340	170	**730**	160	330	T G G T T A A A G G T A T A A T T G A C A G C A C T G T C T C A G A C C					**4%**		**6%**			
ATP2B4-NM_001001396.3eU7475-3'UTR+3110	0					**3**	**6%**	**3%**	0			500	240	**750**	320	320	C A C C A T G C A G A T G G A T A G A C A G A A T C T T T C C T G A C T					**3%**	**9%**	**6%**			
ATP5F1A-NM_001001935.3eU1572-NP_001001935.1aa428PP	4	2%	1%	2%	1%	**3**	**28%**	**3%**	0			190	290	**710**	330	530	T G A G T T G C T G A A G C A A G G A C A G T A T T C T C C C A T G G C	2%	2%	1%	1%	**24%**	**30%**	**29%**			
BAG5-NM_001015048.3eU895-NP_001015048.1aa275SS	0					**2**	**4%**	**1%**	0			350	240	**730**	260	360	T A A A G C A T T T G A C C T G A G A C A G A A T C A T T C C A T T T T					**3%**	**5%**				
BCAR1-NM_001170714.3eU868-NP_001164185.1aa195SL	3	3%	1%	3%	1%	**3**	**28%**	**8%**	0			280	240	**550**	440	180	C T C C C C C A G C C A A G C A G A C A T C C A C C T T C T C G A A G C	2%	4%	3%		**25%**	**37%**	**22%**			
BCAS2-NM_005872.3eU792-3'UTR+90	4	5%	2%	6%	1%	**3**	**17%**	**4%**	0			300	270	**790**	320	340	A A T G A A C T T T G A A G G A C A A C A G C A T C T T C C C A A A A C	5%	7%	5%	2%	**13%**	**18%**	**20%**			
BMPR1A-NM_004329.3eU3005-3'UTR+838	0					**3**	**22%**	**11%**	0			300	390	**830**	210	410	T T A T T A T T T T T G T C A C G G A A G C A T C C T C T C C A A A G					**21%**	**11%**	**33%**			
BMPR2-NM_001204.7eU10980-3'UTR+6715	0					**2**	**24%**	**9%**	0			310	260	**860**	170	440	T A A A G T A G T T C C T G T C A G A T A G G A T T T T C T C A A G A G					**18%**	**30%**				
BRMS1L-NM_032352.4eU1558-3'UTR+407	0					**3**	**16%**	**8%**	0			450	290	**660**	320	200	T G T T T G T A A A T A A G G C C G A T A G A A T G T T T C T A T A A					**8%**	**24%**	**16%**			
BUB1B-NM_001211.6eU1858-NP_001202.5aa569SL	0					**3**	**14%**	**6%**	0			350	170	**860**	200	340	C A G T T C T C A A A A C C T C A G A A A G C A T C A C C T C A A A T G					**7%**	**19%**	**15%**			
C1QTNF5-NM_001278431.2eU915-NP_001265360.1aa228SF	2	27%	22%	27%	22%	**3**	**64%**	**11%**	0			350	210	**840**	150	350	A T G C C A G C A T C A A G A C A G A C A G C A C C T T C T C C G G A T		43%	12%		**54%**	**63%**	**76%**			
C2CD3-NM_001286577.2eU7252-NP_001273506.1aa2348Q*	0					**2**	**4%**	**2%**	0			310	110	**750**	240	400	A C T C T C A G G A T T G C A C G G A T A T T T T C T C T C A G T A C					**2%**		**5%**			
C7orf26-NM_001303039.2eU1825-3'UTR+503	0					**3**	**19%**	**2%**	0			310	310	**850**	270	230	G A A T T C C C C T C A C C T C G G A A A G G A A C T T C T C A G T T T					**19%**	**22%**	**17%**			
CACNB3-NM_000725.4eU1689-NP_000716.2aa419Q*	0					**2**	**7%**	**1%**	0			250	150	**830**	180	350	A G C T C C C G C C A A G C C T G G A C A G G A T C T T C A C A G C G T					**8%**		**7%**			
CALCOCO2-NM_001261390.2eU1415-NP_001248319.1aa454PL	0					**2**	**5%**	**0%**	0			290	310	**790**	200	460	T C A A T T G T C C A A T T T G T G A C A A G A T C T T C C C A G C T A						**5%**	**5%**			
CAV2-NM_001206747.2eU691-3'UTR+158	0					**3**	**2%**	**0%**	0			390	470	**470**	230	230	C A T T T A G A A A T G T T T A T T G A C A G G T C T T T T C A A A T A					**2%**	**2%**	**2%**			
CAVIN2-NM_004657.6eU151-5'UTR-14	0					**3**	**3%**	**1%**	0			480	260	**800**	420	430	G A A G C A G C T C C C A G A G A G A A A G A A C G T T C C C A C C T G					**2%**	**3%**	**5%**			
CAVIN2-NM_004657.6eU905-NP_004648.1aa248RC	3	5%	0%	5%	0%	**3**	**50%**	**4%**	0			410	250	**890**	300	440	A A A G T G G A T A G C C T C A A G A A A G C A T T T C T C G C C A G	5%	6%	5%		**47%**	**49%**	**55%**			
CCDC43-NM_001099225.2eU1675-3'UTR+1187	3	4%	1%	4%	1%	**3**	**41%**	**0%**	0			400	250	**750**	290	330	T T G T C T A G A A G C C T A A G G A C A G C A A T T T C T C T G A C A		4%	3%	4%	**41%**	**42%**	**41%**			
CCDC71L-NM_175884.6eU1351-3'UTR+381	2	5%	3%	5%	3%	**3**	**22%**	**6%**	0			370	350	**710**	350	400	T C T G G A A G T C C T C C G A A G A C A T T A T T T T T C C A A A G G	7%	3%			**17%**	**26%**	**20%**			
CCT6A-NM_001009186.2eU1653-3'UTR+108	4	1%	0%	1%	0%	**3**	**5%**	**1%**	0			350	410	**610**	640	480	A G C T T C A A A T A A T T T T G A A A G A A A T T T T C C C A T A T G	2%	1%	1%	1%	**5%**	**5%**	**4%**			
CDC25A-NM_001789.3eU3224-3'UTR+1179	3	3%	1%	3%	1%	**3**	**32%**	**4%**	0			400	170	**820**	330	360	T G G C A T G G A C A T G A C T G G A T A G A A T T T T C T C A G G A G	1%	4%	4%		**30%**	**36%**	**29%**			
CDC42-NM_001039802.2eU1359-3'UTR+573	2	1%	0%	1%	0%	**3**	**5%**	**1%**	0			290	500	**810**	290	460	T T C C T A G A T C T A G T T T A G A A A A C A T G T T C C C C A T C T	1%	1%			**6%**	**5%**	**4%**			
CDH2-NM_001792.5eU276-NP_001783.2aa56LL	3	3%	1%	3%	1%	**3**	**40%**	**2%**	0			310	200	**830**	220	390	G A A G G A T G T G C A T G A A G G A C A G C C T C T T C T C A A T G T	3%	4%	2%		**39%**	**42%**	**39%**			
CDK12-NM_015083.4eU1691-NP_055898.1aa369HY	0					**3**	**13%**	**5%**	0			240	190	**660**	350	290	A G T C C T G C A T A T T C A A G A C A T T C A T C T T C T C A T A G T					**8%**	**16%**	**16%**			
CENPJ-NM_018451.5eU3964-NP_060921.3aa1266PL	3	8%	3%	8%	3%	**3**	**28%**	**2%**	0			300	320	**900**	400	440	T T C C T G A T G G A C A A G A A G A A A G C A T T T T C C C A G A T G	5%	11%	7%		**25%**	**29%**	**30%**			
CGGBP1-NM_001008390.2eU253-5'UTR-270	1	2%		2%		**3**	**5%**	**2%**	0			400	250	**760**	470	460	A A T C G G G T G C A A G C C C A G A A A C T A T T T C C C A C C A C			2%		**3%**	**7%**	**5%**			
CGGBP1-NM_001008390.2eU3571-3'UTR+2546	0					**2**	**4%**	**1%**	0			430	250	**640**	210	260	T G T T T T C T C A A A G T A T T G A T A G T A T G T C T T C C A G A A						**5%**	**4%**			
CHAC2-NM_001008708.4eU578-NP_001008708.1aa165FF	4	24%	4%	26%	3%	**2**	**6%**	**1%**	0			520	210	**630**	300	190	T G T G C C A G A A G A G C A G A T G A G C A T C T T T T C G C T T T	24%	29%	26%	19%	**7%**		**5%**			
CHSY1-NM_014918.5eU4426-3'UTR+1425	1	2%		2%		**2**	**3%**	**1%**	0			360	270	**590**	430	330	A T C T G T C A T T A T A C C A G A A A G T T A A A T T C T C A G A T C		2%			**2%**		**3%**			
CIZ1-NM_001131015.2eU643-NP_001124487.1aa201Q*	0					**2**	**2%**	**0%**	0			240	230	**700**	250	330	A C C A C C C C C A A T C G A A A G G A T T C T T C T T C T C A G A C A					**2%**		**2%**			
CKAP4-NM_006825.4eU1775-NP_006816.2aa536LL	0					**2**	**2%**	**0%**	0			430	160	**660**	200	560	C C T C A G G A C T T C T G G A C A G A C T T T C T T C T C T A G A C					**1%**	**2%**				
CLCN6-NM_001256959.2eU4861-3'UTR+2245	0					**3**	**21%**	**6%**	0			310	340	**840**	140	350	T T C C A G A T A A G C C C A A A G A C A G C A A C T T C T C C A C T C					**16%**	**27%**	**19%**			
CMTM6-NM_017801.3eU2832-3'UTR+2173	1	1%		1%		**3**	**13%**	**3%**	0			290	110	**770**	140	530	T C T T T C T T T T T C A G A A A G A T A G T A T G T T C A C T G G T A	1%				**13%**	**10%**	**15%**			
CNKSR3-NM_001368116.1eU2068-3'UTR+74	1	7%		7%		**3**	**31%**	**6%**	0			310	150	**780**	180	350	G C C T T G C T T T T A C A G T G G A C A G C C T C T T C T C G T T T C	7%				**28%**	**39%**	**28%**			
CNKSR3-NM_001368116.1eU603-NP_001355045.1aa99HY	2	19%	10%	19%	10%	**3**	**41%**	**8%**	0			480	180	**870**	200	380	A A C T T G G T T C T G A A A C T G A G A G C A T C T T C C C A C A A T	26%		12%		**39%**	**50%**	**35%**			
CNOT7-NM_001322090.2eU1310-3'UTR+99	0					**3**	**5%**	**0%**	0			460	340	**690**	290	310	G A A T C C C T C G A A C A A T A G A C A G T A C C T T T C C C C C C C					**5%**	**5%**	**5%**			
CNPPD1-NM_001321389.1eU472-NP_001308318.1aa15SF	4	35%	9%	39%	3%	**2**	**17%**	**2%**	3	37%	10%	370	250	**790**	320	310	G G C T C C T G C T G G A C G A A G A A G G C A C C T T C T C C C T C G	37%	42%	38%	22%	**16%**		**19%**	41%	44%	25%
CNPPD1-NM_015680.6eU141-NP_056495.4aa15SF	4	33%	14%	40%	5%	**2**	**15%**	**2%**	2	25%	3%	370	250	**790**	320	310	G G C T C C T G C T G G G A C G A A G A A G G C A C C T T C T C C C T C G	43%	35%	42%	12%		**16%**	**13%**	28%		23%
COPS3-NM_001199125.1eU1506-3'UTR+164	0					**3**	**5%**	**1%**	0			350	290	**730**	500	400	G T C T C T G T G T G C T T T C A G A A A A C C A T T T C T C T G C A A					**4%**	**6%**	**4%**			
COX6B1-NM_001863.5eU158-NP_001854.1aa22PP	0					**2**	**1%**	**0%**	3	7%	0%	260	300	**370**	680	200	C A A G A C C G C C C C T T T T G A C A G C C G C T T C C C A A C C A					**1%**		**1%**	7%	6%	6%
CPSF7-NM_001136040.4eU1585-3'UTR+52	4	3%	1%	3%	1%	**3**	**7%**	**1%**	0			340	40	**600**	290	290	A A A T G T T T T T T T A A T G G A C T T G C A T C T C C T C A C C T T	4%	2%	3%	2%	**6%**	**8%**	**8%**			
CRBN-NM_001173482.1eU325-NP_001166953.1aa99Q*	0					**3**	**5%**	**2%**	0			470	100	**680**	260	270	A T C C T G A T T C C C G G A C A G A C A T T A C C T C T T C A G C T T					**4%**	**5%**	**7%**			
CRKL-NM_005207.4eU1516-3'UTR+76	3	16%	2%	16%	2%	**3**	**56%**	**3%**	0			500	250	**850**	340	440	A G T C T C C T T T G A A G T G G G A A A G C A T T T T C T C T C A T A	14%	18%	17%		**56%**	**60%**	**54%**			
CSE1L-NM_001256135.2eU1172-NP_001243064.1aa350SF	2	1%	0%	1%	0%	**3**	**4%**	**1%**	0			320	190	**610**	430	250	T T T T T G A G G G A C C T G T G A C A G G A A T C T T C T C T G G T T		1%	1%		**4%**	**3%**	**4%**			
CTNNA1-NM_001290307.3eU3348-3'UTR+734	4	28%	8%	32%	2%	**3**	**1%**	**0%**	3	7%	1%	220	220	**810**	330	460	A G G A A G C A G T C C C T G G A G A A G G C A T G T T C C C A G A A A	34%	30%	34%	16%	**1%**	**2%**	**1%**	6%	8%	8%
CUEDC1-NM_001271875.2eU835-NP_001258804.1aa111PL	0					**2**	**19%**	**3%**	0			290	160	**690**	330	330	A C A G C T C C G A C T C G G A G G A C A G C A T C C C C C G G A G A						**21%**	**17%**			
CUX1-NM_001202543.2eU5351-3'UTR+776	0					**3**	**14%**	**13%**	0			400	230	**780**	470	380	T C C T A A A T A T T T T C A A G A A A A G A A T C T T C T C G T T T G					**6%**	**29%**	**8%**			
CWF19L1-NM_001303404.2eU982-NP_001290333.1aa313PS	0					**2**	**4%**	**1%**	0			440	260	**650**	180	660	T C A T C C A C A G G T A G A G A T A G C A A A T C T T C T C C T C A T						**5%**	**4%**			
DCAF1-NM_001171904.2eU3174-NP_001165375.1aa1008TI	0					**2**	**12%**	**2%**	0			320	110	**710**	120	410	C T T C C C C A C C T A C G C T G G A C A G T A T A A T C A C A G A G T					**10%**		**13%**			
DCBLD2-NM_080927.4eU4200-3'UTR+1503	0					**2**	**3%**	**1%**	0			410	340	**570**	520	290	T T G T A G A T T T A A T G T T G A A C A G T A C T T T T T C C A T A A A						**3%**	**3%**			
DIABLO-NM_001371333.1eU298-NP_001358262.1aa87TI	0					**2**	**5%**	**1%**	0			410	200	**670**	260	260	C A G T G T C T T T G G T A A C A G A T A G C A C C T C T A C C T T T C					**5%**	**6%**				
DIPK1A-NM_001006605.5eU2437-3'UTR+1117	0					**2**	**8%**	**3%**	0			300	270	**710**	250	430	C T A T G T G A C C A T C A C T G G A C A G C T T T C T C T C A A A A C					**6%**		**10%**			

DLGAP5-NM_001146015.2eU215-NP_001139487.1aa31Q*	0					3	5%	2%	0			340	250	730	370	290	A	C	T	A	A	A	A	T	T	G	C	T	C	A	T	A	G	G	A	A	A	T	C	A	C	T	G	T	C	T	C	A	G	A	A	A						6%	7%	2%			
DPY19L4-NM_181787.3eU3591-3'UTR+1320	0					3	23%	4%	0			450	230	730	420	340	A	A	A	T	T	A	C	T	A	C	A	T	T	A	G	A	A	G	A	G	A	G	C	A	T	T	T	C	T	C	A	T	T	G	T						28%	20%	22%			
DTL-NM_001286229.2eU2252-3'UTR+146	0					3	4%	0%	0			510	310	800	220	360	C	T	G	C	C	T	T	T	T	C	A	T	T	T	T	A	G	A	C	A	A	A	A	T	C	T	T	T	T	C	A	A	C	G	C						4%	4%	4%			
EARS2-NM_001083614.2eU2069-3'UTR+490	0					2	9%	4%	3	7%	1%	330	190	540	430	310	C	T	T	T	T	G	T	T	G	G	C	T	T	G	C	A	G	A	C	A	G	C	T	G	T	C	T	T	C	T	C	A	C	T	G	T						6%	12%			7%	6%	7%
EHBP1-NM_001142614.2eU3996-3'UTR+25	0					2	6%	2%	0			510	400	730	480	240	C	A	G	T	A	G	C	C	A	T	C	A	G	A	T	C	A	G	A	A	A	G	A	A	T	C	T	C	T	C	C	A	A	C	A						7%		5%			
EIF4E2-NM_001276336.2eU2706-3'UTR+1965	0					2	21%	1%	3	16%	7%	300	400	420	390	210	T	G	T	C	G	T	T	G	T	A	G	T	A	T	T	T	G	A	C	A	G	T	T	G	T	C	T	T	T	T	C	C	A	T	C	A						21%		20%		9%	21%	19%
EIF4G2-NM_001042559.3eU2473-NP_001036024.3aa722PL	0					3	2%	1%	0			460	410	690	350	360	T	A	T	A	T	A	A	A	T	G	G	A	T	T	A	A	A	G	A	T	A	A	C	A	T	C	T	C	T	C	C	A	A	A	C						1%	3%	1%			
ELOC-NM_001204857.2eU295-NP_001191786.1aa68HY	0					2	2%	0%	0			210	360	520	440	370	A	A	T	G	A	G	G	T	C	A	A	T	T	T	T	A	G	A	G	A	G	A	T	A	C	C	T	T	C	A	C	A	T	G	T	G						2%	2%				
ELP2-NM_001242875.3eU837-NP_001229804.1aa268LF	0					2	12%	1%	3	45%	4%	530	250	710	310	430	C	A	A	A	A	T	G	A	T	C	A	G	T	T	T	C	A	G	A	A	A	G	T	G	C	T	T	T	C	T	C	T	C	T	G	T						11%	13%			48%	40%	46%
ELP2-NM_001324465.2eU642-NP_001311394.1aa203LF	0					3	10%	1%	3	37%	6%	530	250	710	310	430	C	A	A	A	A	T	G	A	T	C	A	G	T	T	T	C	A	G	A	A	A	G	T	G	C	T	T	T	C	T	C	T	C	T	G	T						9%	12%	10%		30%	43%	37%
ENPP2-NM_001040092.3eU1349-NP_001035181.1aa430PP	0					2	8%	2%	0			340	270	770	330	430	C	T	T	T	A	A	G	C	C	T	T	A	C	T	T	G	A	A	A	C	A	G	C	A	C	C	T	T	C	C	C	A	A	A	C	G						10%		7%			
EPHB4-NM_004444.5eU2242-NP_004435.3aa583II	0					2	8%	1%	0			410	40	690	250	260	A	T	A	T	T	C	G	G	A	C	A	A	A	C	A	C	G	G	A	C	A	G	T	A	T	C	T	C	A	T	C	G	G	A	C	A						7%		8%			
EPRS1-NM_004446.3eU2335-NP_004437.2aa740LL	0					2	2%	0%	0			440	240	600	310	300	G	C	T	C	C	T	T	T	A	A	G	G	A	A	A	G	A	C	C	A	C	A	C	A	C	T	C	T	C	T	C	T	G	A	A	T						2%		2%			
ERCC3-NM_000122.2eU2614-3'UTR+202	1	3%		3%		2	9%	1%	0			470	370	750	210	560	T	T	T	A	T	A	A	A	G	G	A	G	G	A	G	A	C	A	A	T	A	T	T	T	T	T	T	C	A	A	A	C	T		3%					10%	9%					
EZH1-NM_001321079.2eU310-NP_001308008.1aa96PL	0					2	38%	18%	0			330	240	810	270	520	T	C	A	A	A	A	A	G	T	G	T	A	C	C	A	T	A	G	A	G	A	G	C	A	T	T	T	T	C	C	G	G	G	A	T						50%	25%					
FAM111B-NM_001142703.2eU350-NP_001136175.1aa79SL	0					2	3%	0%	0			390	40	810	100	480	C	A	T	A	T	G	G	T	A	A	A	C	C	C	A	G	C	G	A	G	A	G	T	A	T	C	T	A	C	T	C	A	G	C	C	C							3%	4%				
FAM83D-NM_030919.3eU1320-NP_112181.3aa432Q*	0					3	5%	2%	0			300	290	730	160	300	A	C	T	G	C	A	G	T	C	A	T	C	A	C	C	A	G	G	A	T	A	G	C	A	A	G	C	T	C	T	C	A	A	A	C	C						3%	5%	7%				
FANCC-NM_000136.3eU250-5'UTR-14	0					2	6%	0%	0			520	170	690	270	250	A	C	A	G	G	C	T	G	C	T	G	T	G	A	A	G	G	G	A	C	A	T	C	A	C	C	T	T	T	T	C	G	C	T	T	T						6%		6%				
G3BP2-NM_012297.5eU1778-3'UTR+166	0					3	3%	1%	0			300	220	680	420	380	T	C	A	G	T	T	A	A	A	T	T	G	A	G	G	T	G	G	A	C	A	T	T	A	T	T	T	C	C	C	A	A	T	T	T						2%	4%	2%				
GIGYF1-NM_001375759.1eU6285-3'UTR+1642	0					3	4%	3%	0			380	360	700	150	690	G	T	T	A	G	C	G	T	C	C	C	T	G	A	A	A	A	G	C	A	A	T	A	T	T	C	T	C	T	T	A	A	A	G						7%	2%	3%				
GINM1-NM_138785.5eU667-NP_620140.1aa209II	0					2	3%	1%	0			270	110	760	60	250	T	T	C	A	C	T	G	C	A	A	A	C	C	A	C	T	A	G	C	C	A	G	T	A	T	C	T	T	A	T	C	A	G	G	A	A							4%	2%				
GLRX5-NM_016417.3eU878-3'UTR+364	0					3	16%	4%	0			530	210	760	310	480	A	T	G	T	G	T	C	A	G	T	C	T	C	C	A	A	A	G	A	G	A	G	T	A	T	C	T	C	C	C	C	C	A	A	A						12%	16%	21%				
GNB4-NM_021629.4eU3403-3'UTR+2213	1	3%		3%		2	7%	0%	0			480	90	800	210	440	T	A	A	C	C	T	T	A	A	A	T	A	T	G	T	A	A	G	A	G	A	G	T	A	T	C	T	C	C	T	C	T	A	C	T	T			3%				7%	7%				
GNG12-NM_018841.6eU4289-3'UTR+3870	0					3	2%	1%	0			260	110	780	60	380	A	A	A	G	C	A	T	G	T	A	C	T	T	C	A	C	A	G	C	T	A	G	C	A	T	G	T	T	C	A	C	A	G	A	T	T						2%	2%	4%				
GOLGA1-NM_002077.4eU3246-3'UTR+624	0					3	26%	9%	0			340	40	720	170	370	A	G	A	A	A	A	T	G	C	A	C	C	T	T	T	C	T	G	A	C	A	G	T	A	T	C	T	C	C	A	C	T	T	T	A	C						20%	36%	21%				
GOLGA4-NM_001172713.2eU5642-NP_001166184.1aa1788HY	0					3	8%	3%	0			310	110	830	160	560	G	G	G	C	A	G	G	A	A	A	A	G	A	A	G	A	G	A	C	A	G	T	T	T	C	T	C	T	C	A	T	T	T	T						5%	9%	11%				
GPAM-NM_001244949.2eU4928-3'UTR+2241	0					2	18%	5%	0			250	240	910	230	390	A	C	A	A	A	A	A	A	C	A	A	A	A	A	A	C	G	A	A	A	G	C	A	T	C	T	T	C	A	C	A	A	T	G	A						22%		14%				
GPBP1-NM_001127235.2eU210-5'UTR-802	0					3	7%	3%	0			390	240	690	240	210	A	C	T	T	A	A	A	A	A	G	A	G	A	C	C	C	A	G	G	C	A	G	C	A	T	T	T	C	T	T	C	A	G	T	A	T						4%	10%	7%				
GRINA-NM_000837.2eU642-NP_000828.1aa121PL	0					3	4%	1%	3	3%	2%	210	350	500	370	330	C	C	A	A	C	C	C	C	T	A	T	G	G	A	C	A	G	G	T	C	T	C	C	A	C	A	G	G	T	C	T	C	C	A	G	G	A	C						3%	6%	3%		2%	3%	5%
HADH-NM_001184705.4eU1381-3'UTR+341	0					2	6%	0%	0			490	180	690	460	390	C	C	T	T	C	T	C	T	C	A	T	C	A	A	C	G	G	G	A	A	A	G	T	A	C	T	T	C	C	T	C	T	G	A	G	A							6%	5%				
HIF1A-NM_001243084.2eU2903-3'UTR+211	3	2%	1%	2%	1%	3	11%	2%	0			310	130	690	170	640	T	A	A	T	G	C	T	G	G	A	T	C	A	C	A	G	A	C	A	G	C	T	C	A	T	T	T	T	C	T	C	A	G	T	T	T	3%	1%	1%			12%	11%	9%				
HIF1AN-NM_017902.3eU2893-3'UTR+1827	3	17%	8%	22%	0%	2	12%	1%	0			270	120	680	190	490	C	A	G	T	G	T	G	G	A	T	G	T	G	A	A	G	A	T	A	T	G	G	T	A	C	C	T	T	C	T	C	A	A	G	T	G	22%	22%		8%	12%	11%				
HIPK2-NM_001113239.3eU14647-3'UTR+10756	0					2	5%	3%	0			310	210	690	250	540	T	G	A	A	A	T	T	A	T	T	G	C	G	T	G	C	A	A	C	A	G	T	A	T	T	T	C	T	C	G	T	G	T	A							7%	2%				
HMMR-NM_001142556.2eU2497-3'UTR+258	0					2	3%	1%	0			280	130	770	260	240	G	C	T	G	G	C	T	T	T	C	C	A	G	C	T	T	A	G	A	A	T	G	C	A	T	C	T	C	A	T	C	A	A	C	T	T						3%		2%				
HMOX2-NM_001127204.2eU1370-3'UTR+170	0					2	20%	8%	0			290	210	790	40	370	T	G	C	T	A	G	A	G	C	C	T	C	T	G	C	C	T	G	A	C	A	G	C	A	T	C	C	T	C	T	C	T	A	T	G	G							26%	14%				
IFRD1-NM_001007245.3eU1099-NP_001007246.1aa220TI	0					3	6%	1%	0			380	330	780	270	490	C	A	A	C	T	C	T	G	G	A	A	T	G	T	T	T	G	G	A	A	A	A	T	A	T	C	T	T	C	A	C	T	A	A	A	T						7%	6%	7%				
INPP4A-NM_001134224.2eU5034-3'UTR+1707	0					3	10%	2%	0			380	220	710	200	380	G	T	C	A	A	T	T	T	C	T	G	T	T	C	A	C	A	G	A	C	A	G	T	T	T	G	T	T	T	C	A	A	T	A	T						8%	10%	11%				
INTS4-NM_033547.4eU831-NP_291025.3aa269PL	0					3	13%	5%	0			190	370	790	300	360	T	C	A	G	T	C	A	G	C	T	C	T	A	T	C	C	T	G	A	A	G	C	A	T	T	G	T	C	C	A	A	T	T	C						18%	12%	8%				
INTS6-NM_001039937.2eU2514-NP_001035026.1aa819TI	0					2	6%	1%	0			380	190	820	310	350	A	G	C	C	A	G	G	A	A	G	A	A	A	A	T	A	T	G	A	A	A	G	A	A	T	C	T	T	C	A	C	T	T	T	A	C						7%		5%				
JMJD1C-NM_001282948.2eU6940-NP_001269877.1aa2049SL	0					3	4%	1%	0			370	220	810	120	320	A	T	C	T	C	C	T	G	A	A	C	T	G	C	A	A	A	G	A	T	A	G	C	A	T	C	A	T	T	T	C	A	A	A	T	G						4%	5%	4%				
KCNN4-NM_002250.3eU1869-3'UTR+473	0					3	26%	14%	0			370	300	710	470	260	G	G	T	G	G	G	A	C	A	A	C	A	A	A	G	A	G	G	A	C	A	C	C	A	T	T	T	T	C	C	A	G	A	G	C						33%	9%	35%				
KIAA1191-NM_001079684.3eU2575-3'UTR+1414	0					3	20%	2%	0			390	110	690	230	190	A	C	C	T	G	C	T	T	T	T	G	T	T	T	G	G	A	T	A	G	T	A	C	C	T	T	G	T	C	T	G	T	A	T						22%	21%	18%				
KIAA1958-XM_011518311.2eU11735-3'UTR+7541	0					3	37%	8%	0			320	380	740	210	390	A	T	A	T	T	A	C	A	C	T	G	G	A	A	T	T	A	G	A	C	A	G	C	A	T	T	T	T	A	C	C	A	T	T	T						38%	44%	29%				
KIF20A-NM_005733.3eU1266-NP_005724.1aa385SL	0					3	4%	1%	0			310	160	830	100	420	A	G	A	A	C	T	C	C	A	G	C	C	G	C	A	G	T	C	A	C	A	G	C	A	T	C	T	C	A	A	T	C	A						4%	3%	5%				
KIF2A-NM_001098511.3eU449-NP_001091981.1aa61SL	2	7%	3%	7%	3%	3	54%	6%	0			560	170	840	220	240	G	C	A	A	A	G	A	G	A	T	T	G	A	C	C	T	G	G	A	G	A	G	C	A	T	C	T	T	T	T	C	A	C	T	T	A		4%	9%		50%	61%	51%				
KMT5B-NM_001300907.1eU3296-3'UTR+286	1	14%		14%		2	9%	1%	0			470	320	740	240	250	A	A	G	C	A	A	A	A	T	T	G	T	A	C	A	G	T	G	A	T	A	G	C	A	A	C	T	T	T	C	A	C	A		14%					10%	9%				
LATS2-NM_014572.3eU355-5'UTR-92	0					2	5%	2%	0			320	300	750	230	310	C	A	A	A	A	G	G	A	A	A	T	T	A	T	T	T	G	A	A	G	T	A	T	G	T	T	T	A	C	A	A	C	A	A							4%	6%				
LINC01873-NR_130931.1eU1623-ncr	0					2	14%	6%	0			300	240	530	330	210	G	C	C	G	A	T	G	C	A	A	T	C	A	A	C	T	G	G	A	A	G	A	A	A	G	G	G	T	A	T	C	A	G	C	G	A						10%	18%					
LPCAT3-NM_005768.6eU823-NP_005759.4aa257LL	4	24%	11%	30%	2%	2	4%	1%	3	5%	1%	540	80	690	410	400	C	A	G	C	C	C	C	C	A	C	A	T	C	A	C	A	G	A	A	G	A	C	T	A	T	C	T	C	C	T	C	A	C	T	G	A	27%	31%	31%	8%		5%	4%		4%	5%	6%
LRIF1-NM_001006945.2eU895-NP_001006946.1aa194PL	4	46%	16%	54%	5%	3	2%	0%	3	5%	2%	210	370	690	400	540	T	C	A	A	T	A	A	A	A	A	T	T	A	T	A	C	C	G	A	A	G	A	T	A	T	T	T	T	C	C	C	A	G	T	G	A	59%	50%	51%	23%	2%	2%	3%	5%	3%	7%
LRRC58-NM_001099678.2eU6468-3'UTR+5241	0					2	5%	0%	0			320	280	480	460	320	G	A	A	G	A	C	T	G	T	G	A	T	C	C	T	G	C	A	G	G	A	T	T	C	C	T	C	T	C	A	T	A	A	A						5%	5%					
M6PR-NM_001207024.2eU881-3'UTR+146	4	3%	1%	3%	1%	3	8%	2%	0			290	110	660	220	250	T	T	T	C	C	A	G	T	T	T	G	C	T	T	T	G	A	T	T	T	G	C	A	T	C	T	T	C	T	C	A	C	T	A	G	4%	4%	3%	1%	7%	10%	7%				
MAML1-NM_014757.5eU4607-3'UTR+1265	0					3	6%	1%	0			470	170	690	390	450	T	G	G	A	A	A	A	C	G	A	A	G	A	T	G	G	A	G	G	A	G	C	A	C	T	T	C	C	C	C	G	T	A	A	C						6%	5%	7%			
MAML2-NM_032427.4eU6852-3'UTR+2081	0					3	22%	1%	0			380	310	650	380	210	G	T	T	T	T	C	C	G	A	T	T	T	A	T	A	A	G	G	C	A	G	C	A	T	T	T	C	T	C	C	A	T	A	C	A						22%	21%	24%				
MAP3K2-NM_001371910.2eU5374-3'UTR+2925	1	4%		4%		2	7%	0%	3	6%	1%	300	100	430	410	430	A	A	T	G	A	T	A	T	G	G	A	T	C	A	A	C	A	A	A	T	G	C	A	A	T	T	G	A	A	C	T	T	T	T		4%				7%		7%	6%	5%	6%
MAP4K3-NM_001270425.2eU3164-3'UTR+244	0					2	7%	3%	0			380	310	660	170	350	T	A	A	T	C	T	T	T	G	T	A	C	A	T	A	T	A	G	G	C	A	G	T	A	T	T	T	T	T	C	T	G	T	G	A							4%	9%				
MAP4-NM_001384675.1eU629-NP_001371604.1aa178PP	0					2	11%	0%	0			260	260	420	540	280	A	A	A	T	G	A	T	C	C	C	T	T	G	A	A	A	G	A	C	A	G	T	T	A	C	G	T	T	C	C	C	T	T	A	G	A						11%		10%			
MARCHF7-NM_001282805.2eU946-NP_001269734.1aa235R*	0					2	2%	0%	0			350	270	660	320	450	A	A	T	T	T	T	C	T	T	C	A	A	G	A	G	A	A	T	C	A	G	A	A	T	C	T	T	C	C	G	A	A	G	C						2%	2%					
MBIP-NM_016586.3eU918-NP_057670.2aa290PL	4	52%	11%	56%	10%	2	7%	1%	3	21%	5%	380	210	640	520	160	A	T	A	A	A	A	T	C	C	T	T	G	A	A	T	T	G	G	A	A	G	G	C	A	T	C	T	C	T	C	C	T	G	A	A	T	67%	52%	49%	40%	6%		7%	15%	22%	25%
MCMBP-NM_001256378.2eU1461-NP_001243307.1aa401TI	0					3	4%	2%	0			340	150	690	310	460	T	G	A	G	T	G	G	T	T	G	C	C	C	A	C	G	G	A	A	T	A	G	T	A	C	C	T	T	C	A	C	A	G	A	A	C						3%	3%	7%			
ME1-NM_002395.6eU319-NP_002386.1aa74LL	3	11%	3%	11%	3%	3	11%	5%	0			280	190	610	350	310	T	C	T	G	A	A	C	T	C	T	G	A	C	T	T	T	G	A	C	A	G	G	T	A	T	C	T	T	C	T	C	T	T	A	A	T	13%	7%	12%		9%	17%	7%				
MGME1-NM_001310338.2eU1873-3'UTR+610	0					3	31%	5%	0			330	260	770	140	530	A	C	A	T	T	G	C	T	G	A	C	T	A	T	A	A	A	G	A	C	A	G	T	A	T	A	T	T	C	A	C	A	T	G	T						25%	32%	34%				
MGME1-NM_001310338.2eU791-NP_001297267.1aa203SL	0					2	10%	3%	0			500	300	760	250	270	G	G	T	T	C	C	A	C	G	A	A	G	C	C	T	T	G	G	A	A	G	C	A	T	A	C	T	T	T	C	A	C	C	C	C						8%		13%				
MGME1-NM_052865.4eU746-NP_443097.1aa188SL	0					2	11%	8%	0			500	300	760	250	270	G	G	T	T	C	C	A	C	G	A	G	C	C	T	T	G	G	A	A	G	C	A	T	A	C	T	T	T	C	A	C	C	C	C							17%	5%				
MKNK1-NM_001135553.4eU231-5'UTR-25	4	69%	22%	80%	6%	3	59%	8%	3	69%	2%	280	120	820	140	480	G	G	G	A	T	T	T	C	A	A	G	T	T	T	A	C	A	G	A	T	G	G	T	A	T	C	T	T	C	T	C	A	A	A	A	G	87%	76%	77%	36%	50%	65%	61%	71%	67%	70%
MKNK1-NM_001377343.1eU189-5'UTR-56	4	63%	20%	72%	8%	3	63%	20%	3	67%	8%	280	120	820	140	480	G	G	G	A	T	T	T	C	A	A	G	T	T	T	A	C	A	G	A	T	G	G	T	A	T	C	T	T	C	T	C	A	A	A	A	G	64%	78%	75%	35%	78%	40%	70%	67%	75%	60%
MOB1A-NM_001317110.2eU3652-3'UTR+2799	4	41%	13%	47%	4%	3	1%	0%	3	9%	1%	470	80	750	340	340	T	T	C	C	C	C	C	T	T	G	C	T	A	A	T	C	A	G	A	A	G	C	C	A	T	C	T	C	C	T	C	T	C	A	G	T	52%	44%	45%	21%	2%	1%	2%	7%	9%	10%
MRE11-NM_005591.4eU2056-NP_005582.1aa633R*	0					2	8%	0%	2	7%	2%	350	310	390	660	220	G	C	C	T	T	T	A	A	A	T	C	T	A	C	A	A	G	A	C	A	G	C	C	A	G	C	C	T	T	C	C	G	A	A	A	T							8%	9%		6%	9%
MRPL3-NM_007208.4eU1282-3'UTR+85	0					3	2%	1%	0			330	340	780	130	450	T	G	A	T	A	T	C	A	T	A	A	C	C	A	C	C	A	G	A	A	A	T	C	A	T	A	C	T	C	T	C	T	T	T	C						1%	2%	2%				
MTBP-NM_022045.5eU249-NP_071328.2aa66PL	0					3	12%	4%	0			330	240	710	360	430	C	T	T	C	A	A	T	T	A	A	T	C	C	A	G	A	A	G	A	T	A	G	T	A	C	T	T	T	C	C	C	T	G	C	C	T						8%	15%	13%				
MTHFD1-NM_001364837.1eU884-NP_001351766.1aa270PL	0					2	2%	1%	1	1%		230	250	330	370	110	A	G	G	C	C	A	A	A	G	A	G	G	G	G	C	G	A	G	C	T	T	C	A	T	C	A	C	T	C	C	T	G	T	T	C						1%	2%			1%		
NAA25-NM_024953.4eU2986-3'UTR+57	0					2	5%	1%	0			250	180	830	280	300	A	C	T	C	T	G	C	A	A	C	A	G	A	A	T	A	T	G	A	C	A	C	C	A	T	C	T	T	C	C	A	G	G	C	A						6%		5%				
NCAPD3-NM_001372065.1eU1093-NP_001358994.1aa351PL	0					3	11%	3%	0			410	180	780	320	440	T	T	G	T	G	G	A	T	G	A	A	T	T	A	A	A	G	G	A	G	A	T	A	T	T	C	C	A	G	T	C	G						10%	8%	15%				
NCOA3-NM_001174087.2eU6718-3'UTR+2215	0					2	8%	0%	0			330	260	740	40	510	G	T	G	G	C	C	T	G	T	G	C	T	T	T	T	C	A	G	A	T	A	G	T	A	T	A	C	T	C	T	C	T	G	T	T						8%		8%				
NDUFS3-NM_004551.3eU852-3'UTR+39	0					2	5%	2%	3	16%	3%	430	160	690	150	210	A	A	C	G	C	A	T	G	T	G	G	A	T	C	C	T	A	G	A	C	A	G	C	G	C	C	T	T	A	T	C	T	A	T	G	A						4%		6%		17%	19%	13%
NFASC-NM_001005388.3eU5206-3'UTR+1153	0					3	17%	5%	0			310	110	910	100	380	C	C	C	T	T	C	C	A	T	C	T	C	T	A	G	C	A	G	A	T	A	T	C	A	T	C	T	T	C	T	C	A	G	C	C	A						23%	14%	14%				
NFAT5-NM_001113178.3eU10364-3'UTR+5381	0					3	6%	1%	0			400	250	850	260	360	T	T	C	A	G	G	A	A	G	A	A	G	T	G	T	T	G	A	A	G	C	A	T	T	T	T	C	T	C	T	G	A	T	G						7%	7%	4%				
NHP2-NM_001034833.2eU525-3'UTR+184	4	41%	14%	48%	1%	3	7%	1%	3	19%	2%	170	140	780	240	340	T	C	C	T	G	C	C	C	C	A	C	C	C	A	C	T	G	A	C	G	G	C	A	T	C	T	C	C	C	A	G	T	T	C	49%	49%	47%	20%	8%	6%	8%	19%	18%	21%
NHP2-NM_017838.4eU631-3'UTR+101	4	46%	13%	52%	2%	3	7%	3%	3	26%	5%	170	140	780	240	340	T	C	C	T	G	C	C	C	A	C	C	C	A	C	T	G	A	C	G	G	C	A	T	C	T	C	C	C	A	G	T	T	C	55%	52%	51%	27%	4%	9%	8%	23%	23%	31%
NMD3-NM_015938.5eU2431-3'UTR+800	4	59%	17%	67%	6%	3	5%	2%	3	21%	2%	460	210	760	380	520	T	T	T	G	T	T	T	A	T	A	A	A	T	T	G	A	G	A	G	A	G	A	A	T	T	C	T	C	T	C	T	C	T	A	T	73%	62%	67%	35%	7%	5%	3%	23%	22%	20%
NOL8-NM_001256394.2eU4002-3'UTR+301	3	11%	2%	11%	2%	3	8%	3%	1	3%		310	200	660	180	450	T	C	T	A	T	C	C	T	G	A	G	T	A	A	C	T	A	A	T	G	G	A	C	A	T	C	T	C	T	C	A	T	G	C	A		9%	12%	13%		10%	5%	8%	3%		
NOLC1-NM_001284388.2eU2990-3'UTR+838	4	9%	3%	10%	2%	3	21%	2%	1	1%		230	70	770	220	300	T	T	G	A	G	T	C	T	A	A	G	T	T	G	A	G	G	A	C	T	G	C	A	T	C	T	C	T	C	G	T	T	T	A		8%	12%	11%	5%	20%	23%	20%			1%
NONO-NM_001145408.2eU2435-3'UTR+752	4	63%	19%	73%	2%	3	6%	1%	3	20%	0%	360	300	760	340	560	C	C	C	C	T	T	C	A	T	G	T	C	C	T	A	A	A	G	A	A	G	A	C	A	T	T	T	T	C	T	C	T	T	A	G	A	74%	73%	70%	35%	7%	7%	6%	21%	21%	20%

NPPB-NM_002521.3eU137-NP_002512.1aa9RW	4	4%	1%	5%	0%	3	37%	1%	0			290	180	800	250	310	A G A G A C A T G G A T C C C C A G A C A G C A C C T T C C C G G G C G	5%	5%	5%	2%	36%	37%	38%																
NR2C2-NM_001291694.2eU2093-NP_001278623.1aa577PL	0					3	4%	1%	0			320	280	740	140	420	T T G G C A A T G T T T C G A T A G A C A G C A T A A T C C C C T A C A					3%	5%	5%																
NRG1-NM_001159995.3eU1145-NP_001153467.1aa332SF	0					2	9%	2%	0			370	400	760	170	310	G G A G C A A C G G A C A C A C T G A A A G C A T C C T T T C C G A A A						7%	10%																
NUAK2-NM_030952.3eU2390-3'UTR+386	0					3	6%	1%	0			330	230	680	430	270	A C A T G G T G C C T T C T A A G G A C A G C T C C T T C C C T A C T C					7%	5%	6%																
NUP43-NM_198887.3eU2393-3'UTR+1216	0					3	10%	4%	0			370	290	720	320	300	T T T T A A G A T A A T T T A A T G A T A C T A T C T T T C C A A A C T					12%	6%	13%																
OBI1-NM_024546.4eU1989-NP_078822.3aa652Q*	0					3	18%	3%	3	19%	4%	380	240	740	350	440	C C A A G C T G C T T G T T T C A G A C A G A G T T T T C C C A G G G C					14%	20%	20%	15%	23%	20%													
OSBPL2-NM_001278649.3eU1600-3'UTR+61	0					3	12%	4%	0			280	180	790	140	460	A C G A C T G A G T T C G C G G A G A T A G C A T C A T C C C T G A T C					11%	17%	9%																
OSBPL9-NM_001350208.2eU225-5'UTR-538	3	4%	2%	5%	1%	3	44%	4%	0			290	160	810	190	280	G T A T A G A C G A T G A G G A C G A C A G C A C C T T C A C A A T A A	5%	4%		2%	40%	46%	47%																
OTUD7B-NM_020205.4eU2588-NP_064590.2aa748SF	0					2	6%	1%	0			510	150	660	270	230	G A C C C T A C C C C C A C C A G G A C A G C A T C C C T T C T C T G G					5%		7%																
PABPC4-NM_001135653.2eU1785-NP_001129125.1aa316PS	0					3	4%	1%	0			400	350	810	460	400	G A T G A T G A G A A A T T A A G G A A A G A A T T T T C T C C T T T T					4%	6%	3%																
PAPOLG-NM_022894.4eU3708-3'UTR+1286	0					2	44%	8%	0			430	220	840	220	280	T T T T G T A T G T A C T G T A A G A T A C C A T C T T T C A A A G A					50%	39%																	
PARL-NM_001324436.2eU596-NP_001311365.1aa188LL	0					3	7%	2%	0			470	110	760	230	370	C T T G T A T T C T G T T T A T G G A G A G T A C C T T C T C T G C A G					9%	5%	8%																
PCLAF-NM_014736.6eU415-3'UTR+9	0					2	2%	1%	0			440	210	680	500	370	C A C A A A T G A T G A A A A A G A A T A G A A C T T T C T C A T T C A					2%	2%																	
PCSK9-NM_174936.4eU279-5'UTR-13	0					3	13%	8%	0			350	340	730	160	300	C T A G G T C T C C T C G C C A G G A C A G C A A C C T C T C C C T G					9%	22%	9%																
PCYOX1-NM_016297.4eU5208-3'UTR+3662	0					3	16%	7%	0			230	210	750	120	420	T A G A T G A A T A C A T T G T G G A C A G C A T C C T C A C T A C C C					8%	22%	17%																
PEG10-NM_001040152.2eU3267-3'UTR+1855	0					2	2%	0%	3	9%	1%	380	300	690	290	540	C A T C T C A G G C C T G A A A A G A A A G T G C T C T C T C A G A T G					2%		2%	8%	10%	9%													
PHACTR2-NM_001100164.2eU6956-3'UTR+4819	0					3	41%	6%	0			240	230	800	180	440	A C C A A T G C T T T T T T G A A G A C A G T A T C A T C C C A A A T T					39%	36%	47%																
PHF6-NM_001015877.2eU2407-3'UTR+1107	0					3	5%	1%	0			350	290	860	260	490	A A G A A C C C A G C T T T T T A G A A A G G A T T T C A C A C T G G					4%	5%	5%																
PHF6-NM_001015877.2eU4050-3'UTR+2750	0					2	4%	2%	0			400	100	740	220	390	G C A G T T T T A G A A T T T C A G A T A G T A C T T G C T C A G A A G						5%	2%																
PHYKPL-XM_024446242.1eU1589-5'UTR-2097	0					2	21%	6%	0			340	250	570	420	410	A G T G G C T T A A A C A A A A G A C A T T A T T T T C T C A C A G T					17%		25%																
PIK3CB-NM_001256045.2eU2677-3'UTR+582	0					2	13%	5%	0			260	240	730	220	200	T T A A T A T T T A T T T C C A T G A T A G C A T C A T T C C A G C C A					17%		10%																
PLSCR3-NM_001369421.1eU185-5'UTR-73	0					2	7%	2%	0			300	160	790	80	380	C A G A A C T A A G C C A C C C A G A C A C C A T C A T C T C G A A A A						6%	9%																
PLXNA1-NM_032242.4eU6746-3'UTR+809	0					2	6%	0%	0			370	180	750	250	350	A G G G G C C C C G G G T C G C A G A G A G C A C G T T C C C G T T A T					6%		6%																
PMS2-NM_000535.7eU2687-3'UTR+68	0					3	32%	7%	3	34%	5%	470	160	740	220	470	A T T T T T A T G T T T T G A A A G A C A G A G T C T T C A C T A A C C					26%	31%	40%	36%	29%	38%													
POU2F2-NM_001207025.4eU5695-3'UTR+4220	4	37%	19%	40%	22%	3	38%	8%	1	35%		390	80	460	280	180	G A C C T G A C T A G T T T T T C T A A C C C A C A T G A A C A C C A G	40%	19%	63%	27%	38%	47%	31%	35%															
PPP2R3B-NM_013239.5eU1286-NP_037371.2aa357SL	0					3	24%	1%	0			310	150	910	100	420	T T T C T A C C A A G A T G A T A G A C A G G A T C T T C T C A G G A G					25%	22%	24%																
PPP2R5C-NM_001161725.2eU1123-NP_001155197.1aa313TM	0					2	2%	0%	0			280	160	690	210	390	T G C A G T T T T T A G A A A G G A C A G C A C C C T C A C G G A A C					3%		2%																
PPP6R3-NM_001352354.2eU135-5'UTR-227	0					2	7%	1%	0			490	100	650	370	370	T G A C T T G C T C A A A T A G T G A C A G A A C T T C C T C G G C C A					8%	7%																	
PREPL-NM_001042385.2eU829-NP_001035844.1aa265LL	0					2	14%	4%	3	55%	8%	380	180	470	530	310	C C T T T A T C T T A C A A A A G A C A G T C G T T T C T C A C C A T					11%	17%		48%	54%	63%													
PRKCA-NM_002737.3eU6655-3'UTR+4397	0					3	9%	2%	0			290	250	610	420	310	A A A G G T G A T A C C A T C T G A C A G T C A T T T T C T C A C G T T					10%	6%	10%																
PRKCI-NM_002740.6eU493-NP_002731.4aa83Q*	0					2	5%	2%	0			250	110	720	120	360	G A G G A A G G A G A C C C G T G T A C A G T A T C A T C T C A G T T G					4%		6%																
PRMT6-NM_018137.3eU2095-3'UTR+925	0					2	9%	1%	0			290	410	780	480	540	A A A C T C A C T T A A T T A A G G A A A A T A T T T T C C C A G C T A					10%		8%																
PRR11-NM_018304.4eU376-NP_060774.2aa104PL	0					2	4%	2%	0			320	240	800	320	320	G T T T A G A A G T A T T G A A A G A C A C C A T C T T T C C A T C T C						5%	2%																
PSMD9-NM_001261400.3eU461-3'UTR+37	1	2%		2%		3	10%	1%	0			290	260	860	410	300	C T G G G G A A C A G T A A C A G G A A A G C A T C T T C C C C T T G C C		2%			9%	10%	11%																
PSMD9-NM_002813.7eU776-3'UTR+37	1	23%		23%		3	92%	2%	0			290	260	860	410	300	C T G G G G A A C A G T A A C A G G A A A G C A T C T T C C C T T G C C			23%		91%	91%	94%																
PSME2-NM_002818.3eU104-NP_002809.2aa25FF	0					3	9%	1%	0			470	320	790	220	280	A C A G G T G G A G G T C T T C A G A C A G A A T C T T T T C C A G G A					8%	10%	10%																
PSME2-XM_006720213.2eU140-5'UTR-282	0					2	8%	1%	0			470	320	790	220	280	A C A G G T G G A G G T C T T C A G A C A G A A T C T T T T C C A G G A					7%		8%																
PSMG4-NM_001128591.2eU390-NP_001122063.1aa105AV	0					3	19%	5%	0			250	190	810	100	410	A T A A C C T T C A G A A C A C A G A C A G T A A C T T C G C A T T A C					24%	14%	21%																
PSPC1-NM_001042414.4eU595-NP_001035879.1aa178Q*	0					2	3%	1%	0			270	250	860	220	470	T C C A A T G A G C T G C T A G A G C A A G C A T T T T C T C A G T T T					2%		4%																
PTPN11-NM_001330437.2eU2201-3'UTR+242	0					2	2%	0%	0			370	230	780	340	290	A T T T C C T C A G A T A A G A A A A T C A T C T C T A C A A T G T					2%	2%																	
PXN-XM_024449107.1eU557-5'UTR-308	0					3	13%	3%	0			270	120	750	160	370	G T G T C T C T G T G C C C C A G G A C T G C A T C C T C T C A C C A A					17%	13%	10%																
PYGB-NM_002862.4eU3978-3'UTR+1352	0					3	11%	5%	0			250	330	820	200	300	G G C T G T G G T C G T G C C C T G A C A G C A T T T C C C C A G G C					4%	15%	12%																
RAB11FIP5-NM_001371272.1eU5971-3'UTR+1825	0					2	6%	1%	0			430	250	750	230	250	C A T T G G G T A T T A G A G A A G T A A G T A T C T T T T C T G A G A						6%	5%																
RAB35-NM_001167606.2eU204-NP_001161078.1aa34SL	3	4%	1%	4%	1%	3	32%	5%	0			390	260	800	220	450	T A C T G T T G C G T T T T G C A G A C A A C A C T T T C T C A G G C A		5%	4%	3%	36%	35%	26%																
RAB35-NM_006861.7eU204-NP_006852.1aa34SL	1	11%		11%		3	51%	9%	0			390	260	800	220	450	T A C T G T T G C G T T T T G C A G A C A A C A C T T T C T C A G G C A	11%				45%	47%	61%																
RAB35-XM_024448801.1eU920-5'UTR-381	0					3	42%	7%	0			390	260	800	220	450	T A C T G T T G C G T T T T G C A G A C A A C A C T T T C T C A G G C A					40%	50%	36%																
RAB9A-NM_004251.5eU236-5'UTR-42	1	3%		3%		3	8%	3%	0			310	120	820	100	340	C T T T T C C C G T G T C G T T T G A G T G C A T C T T C T C A A C A A			3%		8%	11%	4%																
RABGEF1-NR_104676.2eU225-ncr	0					2	9%	3%	0			340	110	690	250	290	C C T G G G C A A C A T A G C A A G A C T G C A T C T C T A C A A A A A					12%		7%																
RAC1-NM_006908.5eU1514-3'UTR+726	0					3	2%	1%	0			300	220	750	210	490	T G T G A T C A A A G G A C A A A G A C A G T A T T T T G A C A A A A T					3%	1%	2%																
RACK1-NM_006098.5eU204-NP_006089.1aa33SF	0					3	3%	0%	0			250	300	710	120	370	C T A C C C C G C A G T T C C C G G A C A T G A T C C T C T C C G C C T					2%	3%	3%																
RAD21-NM_006265.3eU335-NP_006256.1aa46SL	0					3	13%	1%	0			430	110	800	120	400	A T T T A G A G A G C A G C G T G G A G A G T A T C A C T T C A C C A A					15%	12%	12%																
RALY-NM_007367.4eU441-NP_031393.2aa43SF	4	1%	0%	1%	0%	3	5%	0%	0			480	160	820	220	340	T G A A G A A A T C A G A T G T G G A G A C C A T C T T C T C T A A G T	1%	2%	1%	1%	5%	6%	5%																
RALY-NM_016732.3eU441-NP_057951.1aa43SF	1	1%		1%		3	4%	1%	0			480	160	820	220	340	T G A A G A A A T C A G A T G T G G A G A C A T C T T C T C T A A G T		1%			3%	5%	5%																
RASSF1-NM_001206957.2eU1237-3'UTR+290	1	1%		1%		3	14%	2%	3	32%	5%	410	260	480	540	290	C A G C A G G A G T G G T G C A G A C A G A A G T C T C C T C A A T T T		1%			12%	16%	13%	30%	28%	38%													
RBM39-NM_001242599.2eU2397-3'UTR+537	4	49%	16%	57%	4%	3	9%	1%	3	23%	4%	300	180	710	180	260	T C A A A A T T A T A T T T C T T G A T G G T A T C T T T T C A A T T A	53%	61%	56%	26%	8%	10%	8%	28%	22%	21%													
RCC2-NM_001136204.3eU1479-NP_001129676.1aa486SL	4	31%	10%	36%	3%	3	5%	1%	3	21%	1%	280	130	770	290	360	A G G A G G T A A A G A C T C T G G A T G G C A T T T T C T C A G A G C	39%	32%	36%	17%	5%	6%	3%	20%	21%	22%													
REV3L-NM_001286431.2eU7485-NP_001273360.1aa2188Q*	0					2	10%	4%	0			450	270	890	270	350	G C A G T A A A T A C C C C A C A G A A A G A A A C T T C T C A G A T T					13%		7%																
RNASEH1-NM_001286834.3eU714-NP_001273763.1aa188TM	0					3	7%	2%	0			320	220	700	140	430	A A C T G G T T C T G T A T A C A G A C A G T A T G T T T A C G A T A A					6%	9%	7%																
RNASEH1-NR_148533.2eU710-ncr	0					2	21%	2%	0			320	220	700	140	430	A A C T G G T T C T G T A T A C A G A C A G T A T G T T T A C G A T A A						23%	19%																
RNF167-NM_001320356.2eU922-NP_001307285.1aa169PL	0					2	2%	0%	0			330	370	720	250	450	G G G T G C T T C T G G T T C C C A G A C A A T A C C T T C C C C T T G G					2%		2%																
RNF6-NM_005977.4eU2910-3'UTR+439	4	22%	10%	26%	7%	3	76%	3%	0			380	170	800	260	300	T A A C T T T T A T T T A A G G A C A G T A T C T T T T C A T G A A	34%	24%	20%	11%	73%	79%	77%																
ROCK2-NM_001321643.2eU1082-NP_001308572.1aa267FF	0					3	21%	5%	0			360	220	760	80	350	T G G G G T G G A G A G A A A T C A G A C A G C A T C C T T T C T T T A A					21%	26%	15%																
RPL8-NM_000973.5eU515-NP_000964.1aa160SL	4	5%	2%	6%	1%	3	0%	0%	3	2%	0%	360	40	600	410	440	T G C C C T C C G G C T C C A A G A A G G T T A T C T C C T C A G C C A	7%	6%	6%	3%	0%	0%	0%	2%	2%	2%													
RPLP1-NM_001003.3eU1-5'UTR-132	2	4%	5%	0%		2	0%	0%	1	25%		250	220	220	260	120	C A C A T A A G A G G C T G C G T A T A G G C G C G A G A G C C C C T T	0%			8%		0%	0%	25%																
RPS26-NM_001029.5eU635-3'UTR+38	0					3	2%	0%	0			430	190	730	140	430	A G T T C T T A A A G A C T G A A G A C A G G C T A T T C T C T G G A G					1%	2%	2%																
RPS4X-NM_001007.5eU182-NP_000998.1aa43PP	1	0%		0%		3	2%	1%	3	10%	2%	420	210	680	270	520	C G G T C C C C A C A A G T T G A G A G A G T G C T C C C C C T C A T	0%				1%	2%	1%	10%	9%	12%													
SAP130-NM_001145928.2eU1389-NP_001139400.1aa416HY	0					3	12%	1%	0			230	230	700	230	360	A G T A C C A T T G T T A C C A T G A C A G T A C C C T C C C A T T C C					12%	11%	13%																
SCCPDH-NM_016002.3eU941-NP_057086.2aa309LL	4	50%	15%	57%	3%	3	6%	1%	3	14%	2%	280	230	800	310	230	T G T G A G G T T T G G A A T T G G A A G G C A A C T T C T C A T A A A	59%	60%	53%	27%	7%	5%	7%	13%	16%	13%													
SCHIP1-NM_001197107.2eU2324-3'UTR+322	2	2%	0%	2%	0%	3	13%	1%	0			250	280	700	430	540	T A G A G A T T T A A G T T G G A A C A G T A T T T T C C C A T T G A		2%	2%		13%	14%	12%																
SCO1-NM_004589.4eU690-NP_004580.1aa222PS	0					2	3%	1%	0			550	350	810	340	440	G C C A T C G C A A A T T A T G T G A A A G A A T T T T C T C C C A A A					2%		4%																
SEC61A1-NM_013336.4eU2124-3'UTR+577	0					3	6%	2%	0			610	310	580	530	190	A A A G T G A T T T T T T A A G G A C A G A A C T T C T T C C A A A A					4%	6%	7%																
SELENOT-NM_016275.5eU307-NP_057359.2aa89LL	0					3	2%	1%	0			360	240	710	240	320	C A A C C A A T A T A T A G A C A C A T A G C A T C T T T C C T G T C A					1%	4%	2%																
SEMA3C-NM_001350120.2eU233-NP_001337049.1aa42Q*	0					3	14%	11%	0			250	300	870	290	380	A T T T G T T C T A T C T G T G T G A A A G G A T C T T C C C A G C C C					27%	8%	6%																
SEMA3C-NM_001350121.2eU332-5'UTR-194	0					3	20%	7%	0			250	300	870	290	380	A T T T G T T C T A T C T G T G T G A A A G G A T C T T C C C A G C C C					25%	12%	22%																
SEMA3C-NM_006379.5eU332-NP_006370.1aa24Q*	0					3	20%	11%	0			250	300	870	290	380	A T T T G T T C T A T C T G T G T G A A A G G A T C T T C C C A G C C C					8%	21%	31%																
SERPINB8-NM_001276490.2eU1590-3'UTR+543	0					3	16%	6%	0			350	110	810	250	310	A C A C A G T T T G T A A T G A A G A C A G C T C C T T C T C A T C T T					14%	11%	23%																
SERPINE1-NM_000602.5eU2530-3'UTR+1179	0					3	5%	1%	0			430	390	670	520	290	G C T G C A T G A C C T A C C A G G A C A G A A C T T T C C C C A A T T					5%	6%	6%																
SERPINH1-NM_001207014.3eU1728-3'UTR+326	4	3%	1%	3%	0%	2	1%	0%	0			330	150	600	360	200	A G T A T T C A T A T T T A T A G C C A G G T A C C T T C T C A C C T G	3%	3%	3%	2%		0%	1%																
SFXN1-NM_001322977.2eU2944-3'UTR+1858	0					3	7%	1%	0			420	60	710	320	400	T T C T G A C A A T G T G A C C A G A C T G A A T T T C C T C A T A A A					6%	7%	7%																
SLC19A1-NM_001205206.4eU1293-NP_001192135.1aa391LL	3	24%	15%	32%	6%	3	43%	10%	0			270	70	810	100	380	C C C A T C G C C A C C T T T C A G A T T G C A T C T T C T C T G T C T		36%	28%	8%	32%	52%	45%																
SLC19A1-NM_001205207.3eU1201-NP_001192136.1aa351LL	4	20%	10%	24%	7%	3	38%	7%	0			270	70	810	100	380	C C C A T C G C C A C C T T T C A G A T T G C A T C T T C T C T G T C T	21%	18%	32%	7%	32%	45%	36%																
SLC25A26-NM_001350991.1eU182-NP_001337920.1aa27LL	0					2	12%	4%	0			400	100	670	240	380	G G T G T T T C T G T T G A C T T A G A T T A T T T C C T C T G G A T					10%	15%																
SLC5A6-NM_021095.4eU339-5'UTR-119	0					2	6%	1%	0			310	170	580	330	220	C C A C G G A G C T C A C C C T G G A C A G T A T C A C T C C G T G G A					6%		5%																

SMAD4-NM_005359.6eU812-NP_005350.1aa92HY	0					2	4%	2%	0			360	220	800	410	320	CTTCAGGTGGCTGGTCGGAAAGGATTTCCTCATGTG					5%		3%			
SPARC-NM_001309443.2eU3038-3'UTR+2065	4	31%	11%	36%	5%	3	1%	0%	3	2%	1%	360	130	620	380	400	ACATACCTAGATCTCCAGATGTCATTTCCCCTCTCT	41%	31%	36%	16%	1%	2%	2%	1%	2%	3%
SPATS2L-NM_001100422.1eU2338-3'UTR+249	0					3	2%	1%	0			270	180	720	130	370	TTGCAGCATTTTAGCCAGGCAGTATTTACTCATTAT					2%	3%	2%			
SPDL1-NM_001329639.2eU622-NP_001316568.1aa161SL	0					3	4%	1%	0			480	180	770	420	160	TGTCTGAACGTGTGCAGGAAAGCATGTCTTCAGAGA					5%	3%	4%			
SPDYE2-XM_017012223.1eU4800-3'UTR+3107	2	43%	24%	60%		2	45%	46%	2	27%	7%	250	370	410	230	610	TGGGTGTCCTCAGACCACATGTACTTCTCACCAACT	60%			26%	13%		78%	22%		32%
SRGAP2B-NM_001271870.4eU2515-3'UTR+487	0					2	2%	0%	0			470	360	700	420	400	ATAACTTTTATTGTTGGGAAACTATTTTTTCTAATT					2%		2%			
SRGN-NM_001321053.2eU451-NP_001307982.1aa88PL	2	1%	0%	1%	0%	2	3%	1%	0			270	180	660	360	440	CGAGAATCCAGGACTTGAATCGTATCTTCCCACTTT	1%		1%		3%		4%			
SRSF7-NM_001031684.3eU586-NP_001026854.1aa161R*	0					3	5%	1%	0			320	90	720	250	210	AGGGGACGAAGGTCAAGGTCAGCATCTCCTCGACGA					6%	6%	5%			
SRSF7-NM_001195446.2eU586-NP_001182375.1aa161R*	0					2	6%	2%	0			320	90	720	250	210	AGGGGACGAAGGTCAAGGTCAGCATCTCCTCGACGA						7%	4%			
SRSF7-NM_001363802.1eU719-NP_001350731.1aa161R*	0					2	6%	1%	0			320	90	720	250	210	AGGGGACGAAGGTCAAGGTCAGCATCTCCTCGACGA					6%	7%				
STAT5B-NM_012448.4eU235-NP_036580.2aa27PP	0					2	18%	10%	0			210	240	740	310	310	GATGCAAGCGTTATATGGCCAGCATTTTCCCATTGA					11%	25%				
SUPT5H-NM_001111020.3eU172-NP_001104490.1aa10SF	3	2%	0%	1%	0%	3	19%	3%	0			430	350	730	260	130	AGATGTCGGACAGCGAGGACAGCAACTTTTCCGAGG		1%	1%	2%	15%	21%	19%			
SUPT5H-NM_001111020.3eU173-NP_001104490.1aa10SS	0					3	3%	1%	0			330	430	350	730	260	GATGTCGGACAGCGAGGACAGCAACTTTTCCGAGGA					2%	2%	4%			
SUPT5H-NM_001130825.2eU172-NP_001124297.1aa10SF	0					3	22%	7%	0			430	350	730	260	130	AGATGTCGGACAGCGAGGACAGCAACTTTTCCGAGG					15%	21%	29%			
SUPT5H-NM_003169.4eU276-NP_003160.2aa10SF	2	2%	1%	3%		3	19%	3%	0			430	350	730	260	130	AGATGTCGGACAGCGAGGACAGCAACTTTTCCGAGG	3%			2%	16%	22%	21%			
SUPT5H-NM_003169.4eU277-NP_003160.2aa10SS	0					2	3%	1%	0			330	430	350	730	260	GATGTCGGACAGCGAGGACAGCAACTTTTCCGAGGA						4%	2%			
SUZ12P1-NR_024187.2eU481-ncr	0					2	19%	7%	0			320	300	670	370	310	GGATGTATGTTGTCCAATAAGGCAAGTTCCCACAGA					13%		24%			
SYNJ1-NM_001160302.1eU6402-3'UTR+2389	4	28%	14%	35%	7%	2	6%	2%	3	16%	3%	360	150	770	310	420	AAAATACTATATTTATAGAAGTAATCTTCTCTGTTA	30%	31%	43%	8%	4%	8%		13%	17%	17%
TACO1-NM_016360.4eU434-NP_057444.2aa82SF	1	3%		3%		2	4%	0%	0			240	340	610	220	410	CGAAGGACGTCGAAAGGAGTCGCATCTTCTCCAAAC		3%				3%	4%			
TASOR-NM_001112736.2eU599-NP_001106207.1aa114Q*	0					3	31%	3%	0			360	380	770	490	310	AGGAAGAGCAGAGAAAAGAAAGCACTTTTCCAGCCA					29%	30%	34%			
TBX3-NM_005996.4eU3992-3'UTR+845	0					2	4%	1%	0			390	170	630	280	350	GATTCATGTCGTTCTTTGACAGTTCTTTCTCTTTCC						4%	3%			
TCFL5-NM_006602.4eU1930-3'UTR+275	0					3	19%	6%	0			270	300	860	220	350	TTAATTAGTAATAATTAGTAAGCATTTTCTCAATGC					14%	26%	17%			
TEAD1-NM_021961.6eU4475-3'UTR+2573	0					2	7%	1%	0			210	410	480	520	570	CTAAAGCTTTCTCCAGGACAGATATTTTCCCTGTCT					6%		8%			
TEAD1-NM_021961.6eU5185-3'UTR+3283	0					3	10%	4%	0			410	300	730	400	240	CTTTCATTTTACCCTGTGAAAGCATCTCTCCTAGAG					5%	11%	13%			
TIMM22-NM_013337.4eU715-3'UTR+116	0					2	3%	0%	0			320	320	520	520	350	TGCTTCAGGGCCTGAAGACATTCATTTTCCCTCATG					4%		3%			
TIMP3-NM_000362.5eU1002-3'UTR+69	1	2%		2%		2	6%	1%	0			350	270	580	280	590	GCTGAGCTTCCCTTGGACACTAACTCTTCCCAGATG			2%		5%		7%			
TLCD5-NM_001198670.2eU3637-3'UTR+2509	0					2	25%	18%	0			340	40	760	170	310	GGGCATTGAGATAATCTGACAGCATCTCCACTTCCT						38%	12%			
TMED2-NM_001321445.2eU1730-3'UTR+1018	1	1%		1%		3	8%	1%	0			390	250	710	350	390	CTTGTTTTGTGTAAAATGAAATTACTTTCTCTTGTT	1%				6%	8%	9%			
TMEM104-NM_001321264.3eU443-NP_001308193.1aa99LL	0					3	8%	4%	0			190	230	570	430	250	CTCCTCCACAGCCTCAGACAGCGATGTTCTCATCCG					5%	12%	7%			
TMEM263-NM_001319661.2eU1136-3'UTR+620	0					3	8%	1%	0			510	390	830	270	400	ATTGATGCCTTACAAAAGAAAACATCTTTTCTAATA					8%	7%	9%			
TMEM65-NM_194291.3eU2273-3'UTR+1006	4	54%	17%	61%	8%	3	12%	6%	3	30%	12%	230	70	820	180	420	TTTTTTTTCCCTCCAAAGATGTCATCTTCTCATCTG	61%	53%	70%	31%	6%	13%	18%	21%	43%	26%
TMEM87B-NM_001329914.2eU4508-3'UTR+2517	0					2	11%	6%	0			390	180	780	320	300	TTTTAAGCCTGAGAGATGATAGAATGTTCCCATATT					7%		15%			
TMTC3-NM_001366574.1eU6993-3'UTR+4170	0					3	49%	2%	0			400	240	750	320	240	ATTTCTGTGACTCAATGGATAGCATATTTCCATCAA					47%	50%	50%			
TMX1-NM_030755.5eU3647-3'UTR+2758	0					2	18%	7%	0			510	250	600	620	400	AGTAAATGATGCTTTAGAAAGCAATTTTCTCTCATC					23%		13%			
TNC-NM_002160.4eU5468-NP_002151.2aa1719SL	4	34%	8%	38%	4%	3	3%	1%	3	13%	1%	280	210	770	420	400	CCATGGGCTCCCCAAAGGAAGTCATTTTCTCAGACA	42%	38%	35%	23%	3%	3%	4%	13%	13%	12%
TNFRSF19-NM_001204458.3eU1215-NP_001191387.1aa337LL	0					3	14%	6%	0			130	350	540	360	420	TGAACTCACTGGAGAAGACATTCATTCTCTCAATCC					7%	18%	18%			
TOPBP1-NM_001363889.2eU5157-3'UTR+423	1	5%		5%		3	3%	1%	0			290	110	580	220	310	TATTCATGTTTTCCCTGATTTTTATCTTCTCACCAT		5%			3%	4%	3%			
TOR1AIP1-NM_001267578.2eU711-NP_001254507.1aa165Q*	3	7%	2%	9%	1%	2	7%	5%	0			260	390	790	250	370	CATTCCTCTGAAGAGGATGAAGCATCTTCCCAAACT		9%	8%	5%	4%	10%				
TPD52-NM_001025252.3eU1220-3'UTR+168	0					2	7%	1%	0			290	380	780	230	530	TGTGGGTTAAACAAAATGAAAATATCTTCACCTCTA					6%		7%			
TPGS2-NM_001271949.2eU2137-3'UTR+1104	0					2	18%	1%	0			250	320	860	360	440	AAGTTGCCTGTAATTCAGAAATCATTTTCCCATTGA					17%	19%				
TPST2-NM_001008566.3eU1393-NP_001008566.1aa372SF	0					2	7%	2%	0			550	180	660	420	230	ATTTTCAGGTGAACCAGAACAGCACCTCCTCCCACT					6%		9%			
TPX2-NM_012112.5eU1068-NP_036244.2aa187PS	4	3%	1%	4%	2%	3	9%	2%	0			170	370	810	330	420	CAAGATACTGCTGAAAAGAATGCATCTTCCCCAGAG	3%	2%	5%	2%	7%	9%	11%			
TRAM1-NM_001317804.2eU888-NP_001304733.1aa221LL	3	1%	0%	1%	0%	3	15%	1%	0			350	290	850	260	440	AGCAATGAAAAGTATCAGAAAGGATTTTCTCTGTGG	2%	1%	1%		13%	14%	16%			
TRIM16-NM_001348119.1eU1904-NP_001335048.1aa297PL	0					3	5%	1%	0			330	230	760	290	310	AGTTTAAGAACACTGAAGACATCACCTTCCCTAGTG					4%	5%	6%			
TRIM32-NM_001099679.2eU2620-3'UTR+503	0					3	11%	6%	0			380	180	770	240	380	CTTTCAGTGACATTTAAGACATCATATTCCCGTAAC					8%	8%	18%			
TSPAN2-NM_001308315.2eU1816-3'UTR+1154	0					2	17%	8%	0			360	330	820	390	380	GCCAAACCAAAATAAAGAAAAGCATCTTCTCCTAGT						22%	11%			
UBB-NM_001281716.2eU377-NP_001268645.1aa38PL	4	28%	7%	31%	1%	3	1%	0%	3	4%	0%	210	360	590	530	430	CCAAGATCCAGGATAAGGAAGGCATTCCCCCCGACC	32%	32%	30%	18%	1%	1%	1%	4%	4%	4%
UBB-NM_001281716.2eU605-NP_001268645.1aa114PL	4	21%	6%	24%	3%	3	1%	0%	3	4%	0%	280	360	610	420	350	CCAAGATCCAGGATAAAGAAGGCATCCCTCCCGACC	27%	25%	21%	13%	1%	2%	1%	4%	4%	4%
UBB-NM_001281716.2eU833-NP_001268645.1aa190PL	4	46%	13%	52%	3%	3	4%	0%	3	12%	1%	210	300	680	380	450	CCAAGATCCAAGATAAAGAAGGCATCCCCCCCGACC	55%	53%	49%	27%	4%	4%	4%	11%	12%	12%
UBB-NM_018955.4eU213-NP_061828.1aa38PL	4	27%	6%	30%	0%	3	1%	0%	3	3%	0%	210	360	590	530	430	CCAAGATCCAGGATAAGGAAGGCATTCCCCCCGACC	30%	30%	31%	18%	1%	1%	1%	4%	3%	4%
UBC-NM_021009.7eU1320-NP_066289.3aa418PL	4	5%	1%	5%	0%	3	0%	0%	3	1%	0%	320	260	570	500	270	CAAAGATCCAAGACAAGGAAGGCATCCCTCCTGACC	6%	5%	5%	3%	0%	1%	0%	1%	1%	1%
UBC-NM_021009.7eU1548-NP_066289.3aa494PL	4	4%	1%	4%	1%	2	0%	0%	3	1%	0%	320	260	570	500	270	CAAAGATCCAAGACAAGGAAGGCATCCCTCCTGACC	5%	4%	4%	3%	0%	0%		1%	1%	1%
UBC-NM_021009.7eU180-NP_066289.3aa38PL	4	17%	3%	19%	1%	3	1%	0%	3	3%	0%	320	260	570	500	270	CAAAGATCCAAGATAAGGAAGGCATCCCTCCTGACC	19%	19%	18%	12%	1%	1%	1%	2%	3%	3%
UBC-NM_021009.7eU494-NP_066289.3aa143LL	0					2	1%	0%	3	3%	0%	420	190	720	370	340	TCTGACTACAACATCCAGAAAGAGTCTACCCTGCAC						1%	1%	3%	3%	3%
UBE2B-NM_003337.4eU770-3'UTR+284	0					2	3%	1%	0			420	40	720	220	310	TGGTGTGGAGTTTTCATGACAGAATATACACATTTT					3%		4%			
UBE2G2-NM_001202489.2eU1481-3'UTR+993	0					3	11%	4%	0			250	290	690	330	540	TGCTGATCACAAGGACAGACAGTTTTTTCCCGACCA					7%	15%	10%			
UBE2H-NM_001202498.2eU1547-3'UTR+969	0					2	3%	1%	0			220	170	730	100	430	TGCTTAGAAAGGTTGCAGATTTCATCTTCACCTACC						3%	4%			
UBE2R2-NM_017811.4eU1512-3'UTR+197	0					2	2%	0%	0			540	300	610	250	460	TGGACCTTTAATGGAGAGAGAGTAACCCTCCACAGA					2%	3%				
UFL1-NM_015323.5eU2493-3'UTR+40	0					3	7%	1%	0			360	420	770	320	390	TTTACATTTGTCATATAGTAAGCATTTTCCCCCAAG					8%	5%	7%			
UHMK1-NM_001184763.1eU7901-3'UTR+6786	4	18%	6%	21%	2%	2	4%	1%	2	2%	0%	280	300	690	420	540	ATGTGTGTCAGTACCAAAAAGTTATTTTCTCAAATC	23%	20%	20%	9%	3%	5%		2%	2%	
UPF3B-NM_023010.4eU2111-3'UTR+663	0					3	3%	1%	0			380	260	630	180	150	AAACTTCGTGTTTTGTCATCAGCATCTTTTCTATTA					3%	4%	3%			
USP10-NM_001272075.2eU730-NP_001259004.1aa177TI	0					3	35%	3%	0			350	40	770	210	370	TGAAAGATGGTGGCGATGATAGTATCTCCACAGAAG					38%	32%	36%			
VDAC2-NM_001184783.3eU987-NP_001171712.1aa130SL	1	3%		3%		3	10%	2%	0			450	110	770	190	290	GTTTGAAACTGACATTTGATACTACCTTCTCACCAA	3%				9%	11%	12%			
VPS13A-NM_001018037.2eU4465-NP_001018047.1aa1432R*	0					2	12%	9%	0			410	250	820	300	270	AAAAGACCTCATGTCAAGAAAGCAACTCCTCGAATG						18%	6%			
WASHC5-NM_001330609.2eU1899-NP_001317538.1aa488TI	0					2	4%	0%	0			320	250	830	230	330	TTTTGCAGATCATCCCAGAAAGCATGTTTACATCTC					4%		3%			
WDR76-NM_001167941.2eU1316-NP_001161413.1aa401II	0					3	5%	1%	0			410	170	790	170	440	TGTCCACCCAGTGCATAGACAGTATTTTATCACTGC					6%	4%	6%			
WWC2-NM_024949.6eU3841-3'UTR+27	1	4%		4%		3	9%	4%	0			380	310	790	340	400	GTGATTACATGACTTAAGAAATTATTTTTTCATCTG			4%		7%	5%	14%			
XPO6-NM_001270940.2eU791-NP_001257869.1aa6HY	0					3	8%	2%	0			570	230	750	330	260	GCATTGGAAAGTCTGATGACAGAATTTTTTCACGAT					9%	9%	7%			
XPO6-NM_015171.4eU655-NP_055986.1aa20HY	0					3	8%	2%	0			570	230	750	330	260	GCATTGGAAAGTCTGATGACAGAATTTTTTCACGAT					6%	9%	7%			
YARS2-NM_001040436.3eU1388-NP_001035526.1aa455LL	0					3	6%	2%	0			430	250	820	180	380	GAGTGTTTTAATTGTTGGACAACATATTCTCAAGAA					5%	4%	8%			
ZBTB21-NM_001098402.2eU1274-NP_001091872.1aa363Q*	0					2	4%	1%	0			260	230	580	280	490	TATTCACCTTCCATAGATTTGAAATCTTCCCAGGGA					3%	4%				
ZC3HC1-NM_001282190.2eU874-NP_001269119.1aa253Q*	0					3	6%	1%	0			290	250	780	100	380	TCCATGCAGCTCTCCCTGATAACATGTTCGCAATGT					7%	6%	5%			
ZFYVE26-NM_015346.4eU1879-NP_056161.2aa580SL	0					2	26%	18%	0			350	280	910	270	380	TGTGCCTGGAGCTTCTGGAAAACATCTTCTCATTGC					13%	38%				
ZMYM6-NM_007167.4eU542-NP_009098.3aa113Q*	0					2	18%	6%	0			310	80	850	140	340	CAAACTGCATATCATAAGACAGGATCTACTCAGCTC					14%		22%			
ZNF10-NM_015394.5eU665-NP_056209.2aa160Q*	0					2	32%	12%	0			350	180	780	350	430	GTGGCATTCACCCAAAAGAAAGTACTTACTCAGGAG					40%		23%			
ZNF224-NM_001321645.3eU772-NP_001308574.1aa149Q*	0					2	41%	8%	0			260	350	580	570	370	TCTGTAATTCACACAAGACAGAAATCTTCCCAGGGC						47%	35%			
ZNF335-NM_022095.4eU4282-3'UTR+121	0					3	7%	4%	0			210	160	800	0	400	TCTCCAGATACTGGATAGCCAGCATCCTCTCATTCC					4%	11%	7%			
ZNF473-NM_001006656.4eU2238-NP_001006657.1aa684TI	0					3	5%	0%	2	6%	3%	530	210	700	180	430	TTAAATGTAGTAAGTGTGACAGAGTCTTCACCCAGA					6%	5%	5%	4%		8%
ZNF598-NM_178167.4eU3339-3'UTR+550	0					2	8%	1%	0			560	150	650	310	300	CCTCTGACCTTTTATAAGACAGTTTATCTTCAAATA					9%	8%				
ZNF609-NM_015042.2eU2418-NP_055857.1aa677TI	0					3	17%	5%	0			170	190	560	480	230	AAATCTACACCTTCCAGACAGCCACCTTCACAGCAG					11%	20%	20%			
ZNF680-NM_178558.5eU1904-3'UTR+194	0					2	13%	6%	0			360	310	740	420	310	CACATCTTATTGCACAGGAAAGCATTTTTACTTGAG						9%	17%			
ZNHIT1-NM_006349.3eU564-3'UTR+68	0					3	4%	2%	0			550	100	730	360	340	TGCCCGGCCTTCAGAAAGACAGAATTTCATCACCCA					7%	4%	3%			

C) PPR56_S4TN>TD

>total: 2265

Offtarget	Rep. 56-N	%CU 56-N-4	STABW 56-N-4	%CU 56-N-3	STABW 56-N-3	Rep. 56-S7	%CU 56 S7	STABW 56-S7	Rep. 56-S4	%CU 56-S4	STABW 56-S4	PPR56 S4 Scoring -2	-1	Match	+1	+2	Binding region	%editing in individual replicates PPR56-native %IMR1	%IMR2	%IMR3	%ELIM1	PPR56-S7mut %I6-2	%I7	%I8	PPR56-S4mut %I1-2	%I3	%I4
blue > same position in gene																											
AACS-NM_001319839.2eU1183-NP_001306768.1aa345LL	0					0			2	7%	1%	370	200	620	270	280	T G G A T G A T G T G G A A C T G G A T G G T G T C C C T T C T G G C C									7%	6%
AACS-NM_001319839.2eU1688-NP_001306768.1aa513SF	0					0			3	7%	3%	450	360	510	640	400	A C G G C A A C A A G T A C A G G A A G G C G T A T T T C T C A A A T								5%	10%	7%
AACS-NM_001319839.2eU1911-NP_001306768.1aa587LL	0					0			3	9%	4%	320	430	710	260	510	G A A A A G C C G T G G A G C A A G G A G G T G C T T T C T C A A C C								6%	8%	14%
AACS-NM_001319839.2eU371-NP_001306768.1aa74SL	0					0			2	5%	1%	410	270	700	60	480	A G T T C T G G A A A T T C A G T G G A A T T G T C T T C T C A C G T G								5%	6%	
AACS-NM_001319840.2eU1991-NP_001306769.1aa614SL	0					0			3	11%	4%	320	430	710	260	510	G A A A A G C C G T G G A G C A A G G A G G T G C T T T C T C G A A C C								10%	8%	15%
AAGAB-NM_001271885.2eU279-5'UTR-39	0					0			3	4%	1%	400	130	720	170	310	C A C A A A A A T C G G G C C T T G A T A G T G T C T C C T C A T G G C								4%	5%	3%
AAGAB-NM_001271885.2eU450-NP_001258814.1aa45PL	0					0			3	35%	7%	300	140	730	360	200	A G G A G T T G C C T G A G G A G G A T G A T G A C T T C C C A G A A T								43%	29%	34%
AAGAB-NM_001271885.2eU981-3'UTR+44	0					0			3	6%	4%	380	170	350	410	360	G G G T T T G A C C A A C A A A G A T G C T A G C T G T C T C T G A G A								3%	7%	10%
AARS2-NM_020745.4eU1046-NP_065796.2aa341PL	1	8%		8%		0			3	23%	6%	210	230	740	240	290	T C A G T G T C T G C A T C T C T G A T G G C A T C T T C C C T G G G A		8%						22%	17%	30%
AASS-NM_005763.4eU3385-3'UTR+500	0					0			3	11%	3%	350	260	690	460	410	T T G T A T T T T T C A G T A G A G A C G G G G T T T C A C C A T G T T								8%	10%	14%
AATF-NM_012138.4eU1067-NP_036270.1aa299Q*	0					0			2	3%	1%	280	460	530	440	450	T T G G T A G G T C T T C A G G A A G A G T T G C T T T C C A G T A C									2%	3%
ABCB7-NM_001271696.3eU1398-NP_001258625.1aa463LF	4	39%	11%	44%	6%	1	4%		3	7%	3%	260	160	680	310	370	C A A A T T A A A G A C A A A G T G A T G G C A T C T C C C C T T C A G	48%	37%	48%	24%		4%		4%	9%	7%
ABCC4-XM_017020319.1eU279-5'UTR-130	0					0			3	47%	18%	390	70	740	260	320	C C A C T T G G A T A A T C C A G G A T G A T G T C T T C A C T C C A A								31%	44%	67%
ABHD16A-NM_001177515.2eU707-NP_001170986.1aa173Q*	0					0			3	10%	4%	360	150	780	270	180	C T C C T C A A C C G G G T T A A G A A G C T G C C T T G T C A G A T C								9%	7%	14%
ABHD16A-NM_021160.3eU335-NP_066983.1aa98HY	0					0			3	13%	3%	330	210	740	210	480	T T G A G T T T G T C C A A A G T G G T G C C G T T T T C T C A C T A T								11%	11%	17%
ABHD2-NM_007011.8eU1943-3'UTR+53	0					0			3	12%	6%	570	150	610	480	160	C C A G C A G C C C T C C T C T G G A A G C T G C G T C C C C T C A C C								11%	18%	6%
ABHD3-NM_001308256.2eU996-NP_001295185.1aa296SL	4	8%	3%	9%	2%	0			3	67%	3%	410	130	780	290	330	T G T G T C T A A A T T C T G T G G A T G A T G T T T C T C A C C C A	10%	7%	11%	4%				70%	64%	66%
ABI1-NM_001012750.3eU2833-3'UTR+1292	0					0			3	9%	2%	390	250	570	420	500	A A T T G A A G G G A G G G C T G A G G G A T G T T T T C T C T T T								11%	8%	8%
ABI2-NM_001282925.3eU4740-3'UTR+3077	0					0			3	7%	1%	340	250	630	220	370	C C C C T T A A A A A A A T G A A T A G T T G T C T T T T C T T G T C								6%	8%	5%
ABL1-NM_005157.6eU1966-NP_005148.2aa591LL	0					0			3	14%	2%	530	340	550	400	340	G G G C G G C C T G A A T G A A G A T G A G C G C C T T C T C C C A A								15%	14%	12%
ACACA-NM_198834.3eU6329-NP_942131.1aa1931TI	0					0			3	3%	0%	340	340	770	290	400	C T G T G T G T G A T G A C T T T G A A G G G G T T T T C A C T G T C C								3%	4%	3%
ACAD8-NM_014384.3eU2021-3'UTR+740	0					0			2	14%	5%	310	320	530	400	260	T T T T T G T T T C C T T T T C T G A A G C T G T T C C T C C T T T T A									10%	17%
ACAD9-NM_014049.5eU236-NP_054768.2aa55PL	1	3%		3%		2	8%	1%	3	38%	1%	250	320	700	510	350	T A G G C A A A A T C A A G A A G A A A G A A G T T T C C C A T T T C		3%			8%	9%		38%	39%	39%
ACAP2-NM_012287.6eU3062-3'UTR+552	0					0			3	13%	3%	210	470	720	270	610	G A T T T A T T A G A A C T A G A G A A T G T G T T T C C C C G T T T								11%	16%	12%
ACBD5-NM_001042473.4eU3025-3'UTR+1409	0					0			3	36%	10%	420	320	690	500	410	T T T G T A T T T T T A G T A G A G A C G G G G T T T C T C C A T G T T								25%	44%	38%
ACBD7-NM_001039844.3eU1154-3'UTR+839	0					0			2	24%	9%	300	330	750	390	450	T T T G T A T T T T T A G T A G A G A C G G G G T T T G G C C A T G T T									18%	31%
ACIN1-NM_001164814.1eU545-NP_001158286.1aa73Q*	0					0			3	5%	1%	510	140	520	350	290	G A G G A G G T G A C T C T G G A C G G G A A G C C T C T T C A G G C G								4%	5%	6%
ACO1-NM_001278352.2eU3162-3'UTR+305	1	4%		4%		0			3	63%	3%	480	190	650	420	160	A A A G T T A C T G A T C A C A G G A C G T T G C T T T T T C A C T G T		4%						65%	60%	65%
ACSL3-NM_001354158.2eU2373-NP_001341087.1aa668SL	0					0			2	3%	1%	320	270	620	280	160	T A C T T A A A G T G C T T T C C G A A G C T G C T A T T T C A G C A A								2%		4%
ACSS2-NM_001076552.3eU667-NP_001070020.2aa211LL	0					0			3	18%	12%	230	70	790	140	290	A C G G A T C T T G G A T T C C A G C T G C A G T C T T C T C A T C A C								31%	10%	12%
ACTR10-NM_018477.3eU1239-NP_060947.1aa390LL	0					0			3	11%	1%	170	360	590	270	520	G A C G G G C C G T A T A C C T G A T T G G T G T T C T C T C A A T A A								11%	13%	10%
ACTR2-NM_001005386.3eU850-NP_001005386.1aa257II	0					0			3	4%	1%	450	90	530	460	150	A T C T T A T A C A C T C C C A G A T G G A C G T A T C A T C A A A G T								5%	3%	4%
ACVR2A-NM_001278579.2eU2632-3'UTR+821	0					0			2	16%	3%	380	320	720	160	370	G T G C T G T T T T T T G A A A A G A T G G T G T C A T T T C C C C C T								14%	18%	
ADAM17-NM_001382777.1eU241-5'UTR-666	0					0			2	3%	1%	450	180	610	520	110	A G C G G G G C C G G G A A C A T G A G G C A G T C T C T C C T A T T C								2%		3%
ADAR-NM_001025107.3eU4034-3'UTR+251	4	36%	13%	42%	2%	2	2%	0%	3	2%	0%	340	210	710	220	250	A A G A G G C A G A A A C C T A A G A A G T T A T C T T T T C T T T C T	45%	41%	40%	16%	1%		2%	3%	2%	2%
ADGRG2-NM_001079858.3eU3007-NP_001073327.1aa978HH	0					0			3	40%	13%	290	250	470	400	410	T A G T G T T C A G A A T G G A G A T G T G T G C C T T C A C G A T T T								35%	29%	55%
ADIPOR1-NM_001290553.2eU180-NP_001277482.1aa4HY	0					0			3	18%	3%	360	220	670	320	270	G G G T A T T G A G G T A C C A G C C A G A T G T C T T C C C A C A A A								19%	21%	15%
ADIPOR1-NM_015999.6eU232-NP_057083.2aa4HY	0					0			3	20%	2%	360	220	670	320	270	G G G T A T T G A G G T A C C A G C C A G A T G T C T T C C C A C A A A								19%	22%	20%
ADNP-NM_001282531.3eU3788-NP_001269460.1aa971PL	0					0			3	26%	7%	370	280	630	510	320	A T G T T G T T G A G T G G A A A G A C G G T G C T T C T C C A T C T G								17%	30%	29%
ADSL-NM_000026.4eU1461-NP_000017.1aa468LL	0					0			2	4%	1%	260	320	670	270	600	C A G A G A T T C T T A G A A G A G G A G G T G T A T C C C C T G T T A									4%	5%
AFDN-NM_001207008.2eU5995-3'UTR+541	0					0			3	10%	4%	490	250	690	180	210	C T C C T C C C A T G T C C C C T G A T G G T G T C T G T T C C C A C A								14%	8%	9%
AFF1-NM_001166693.3eU1314-NP_001160165.1aa350Q*	0					0			3	50%	25%	350	150	810	190	240	G C C A A G C T C A C C A A A C T G A A G A T G C C T T C T C A G T C A								24%	50%	75%
AFF4-NM_014423.4eU466-NP_055238.1aa29PL	0					0			3	7%	1%	390	220	810	290	220	A G G A A A T T C A G C A G G G C G A A G A C G C C T T C C C A C C T A								8%	7%	5%
AFMID-NM_001010982.5eU1467-3'UTR+546	0					0			2	9%	5%	400	190	690	360	460	T T T G T A T T T T T A G T A G A G A C G G G G T T T C A A C A T A T T								5%		13%
AGBL5-NM_001035507.3eU163-5'UTR-11	0					0			2	8%	2%	370	200	680	570	300	G G G C C A G A G C G G G G C A G G A G G A G A T G C T T T C C C A G C C C								6%	10%	
AGFG1-NM_001135187.2eU1863-NP_001128659.1aa533Q*	1	9%		9%		3	54%	19%	3	10%	3%	310	310	730	230	470	G C A G C T T T C C C T C A A C A G A C A G C T T T T C T C A A C A G		9%			37%	50%	75%	7%	9%	14%
AGFG1-NM_001135189.2eU1671-NP_001128661.1aa469Q*	4	5%	2%	6%	1%	3	51%	7%	2	4%	1%	310	310	730	230	470	G C A G C T T T C C C T C A A C A G A C A G C T T T T C T C A A C A G	7%	6%	4%	3%	51%	57%	43%	4%		3%
AGFG2-NM_006076.5eU550-NP_006067.3aa136Q*	0					0			3	17%	5%	330	360	690	420	330	A G G G A T C C T C A G A A A G T G A A G G A G T T T C T C C A G G A A								15%	23%	14%
AGO2-NM_001164623.3eU3513-3'UTR+908	0					0			3	46%	8%	340	190	750	290	350	T A T T A A T G T G A T A G A T A G A T G C T G T T T T T T C A T T T								46%	39%	55%
AGO2-NM_001164623.3eU4471-3'UTR+1866	0					0			3	24%	5%	440	80	760	140	310	G G A T G A C T A T T A T T T G T G A A G A T G T G T A C T C A G A G T								23%	21%	30%
AHCTF1-NM_001323342.2eU4097-NP_001310271.1aa1240PL	0					0			3	9%	5%	240	250	740	220	380	G A A T T T C A T T T G T G G A A G A A G A T G T C C A C C C A A A A T								5%	6%	15%
AHCTF1-NM_001323342.2eU696-NP_001310271.1aa106LL	0					0			3	41%	5%	470	200	690	430	370	A G G A T T G G A A G A A A A C A G A A G G G A G T G T T C T C T G T C T								36%	40%	46%
AHCYL1-NM_001242673.2eU1988-NP_001229602.1aa396LL	0					0			3	16%	3%	310	170	650	390	340	A G T T G T C C T C C T G G C A G A G G G T C G T C T A C T C A A T T T								14%	13%	19%
AHI1-NM_001134830.2eU428-NP_001128302.1aa72PP	4	35%	16%	40%	17%	0			2	6%	1%	170	370	740	280	290	T G A T C C C G A C A C T A T T A G A A G C A A T C T T C C C C A T A T	38%	57%	24%	23%				6%		7%
AHNAK-NM_001346445.2eU6421-NP_001333374.1aa2080SL	0					0			3	13%	1%	210	130	710	150	330	T G A A C T T G C C C A A G G C T G A T G T T G T T G T C T C A G G A C								13%	14%	11%
AIMP1-NM_001142415.2eU746-NP_001135887.1aa210LF	0					0			3	9%	1%	320	280	600	330	290	G A A C A G A T G C A A A A T C G G A T G G T G A T T T T A C T T T G T								8%	9%	11%
AK1-NM_001318121.1eU691-NP_001305050.1aa184SF	0					3	5%	2%	3	6%	3%	500	300	730	180	350	A C G C T G A G G G C T C C G T G G A C A G T G T C T T C T C C C A G G					3%	6%	5%	3%	10%	5%
AK2-NM_001199199.3eU693-NP_001186128.1aa213AV	0					0			3	6%	2%	290	120	780	140	210	A T G C A T C C C A G A C C C C C G A T G T C G T G T T C G C A A G C A								4%	7%	7%
AK2-NM_001319139.3eU835-NP_001306068.1aa173AV	0					0			2	10%	5%	290	120	780	140	210	A T G C A T C C C A G A C C C C C G A T G T C G T G T T C G C A A G C A								7%		14%
AK2-NM_001319140.2eU835-NP_001306069.1aa173AV	0					0			3	13%	3%	290	120	780	140	210	A T G C A T C C C A G A C C C C C G A T G T C G T G T T C G C A A G C A								10%	15%	15%
AK3-NM_001199852.2eU752-3'UTR+73	0					0			3	70%	3%	410	390	640	440	240	C C T A G T C C T T G C A T T T A G A A G C T G C T T T T C C T A A G A								68%	70%	74%
AKAP17A-NM_005088.3eU3150-3'UTR+877	0					0			2	13%	2%	340	360	680	290	390	A C G T T C G C G T T A G G A A A G A T G G T G T T T A T T C C A G T T									14%	12%
AKAP8-NM_005858.4eU1039-NP_005849.1aa328SF	0					0			2	5%	1%	320	400	750	210	400	T G G C C C G G G T T G A C A G T G A A G G A G A T T T C T C C G A A A								6%		5%
AKAP8-NM_005858.4eU2128-NP_005849.1aa691TI	0					0			3	10%	2%	250	110	650	300	530	C T G A T G C A G A G T C T A A A G A C G C T G T T C C C A C A G A A T								8%	10%	12%
AKIP1-NM_001206646.2eU951-3'UTR+358	0					0			3	14%	3%	350	260	690	460	410	T T T G T A T T T T T A G T A G A G A C G G G G T T T C A C C A T G T T								17%	11%	15%
AKIRIN1-NM_001136275.2eU857-3'UTR+308	0					0			2	3%	0%	260	310	680	460	470	T T C A G T G G C A T T C A A C A A A T G G A G T T T C C C C A A G C A								3%	3%	
AKIRIN2-NM_018064.4eU770-NP_060534.1aa74SF	0					0			3	6%	3%	420	180	680	170	260	T G G A G C C A T C C C C C T T C G G C G A C G T C C T C T C C G C C								8%	3%	7%
ALDH1A2-NM_001206897.2eU1510-NP_001193826.1aa430TI	0					0			3	15%	4%	330	260	670	180	300	C A G A C T T T G G A C T C G T A G C A G C T G T C T T T A C T A A T G								10%	17%	17%
ALDH1A3-NM_000693.4eU1411-NP_000684.2aa445TI	0					0			3	8%	3%	300	200	780	140	380	C C G A C T A T G G A C T C A C A G C A G C C G T G T T C A C A A A A A								6%	11%	7%
ALDH2-NM_000690.4eU1399-NP_000681.2aa450TI	0					0			3	4%	1%	220	200	750	140	320	C C A C G T A C G G G C T G G C C G C A G C T G T C T T C A C A A A G G								4%	3%	5%
ALDH7A1-NM_001182.5eU1358-NP_001173.2aa446AV	0					0			3	7%	4%	410	250	800	300	190	T T A A A T T C A A G A A T G A A G A A G A G G T C T T T G C A T G G A								3%	10%	10%
ALKBH6-NM_001297701.2eU729-NP_001284630.1aa197SL	0					0			3	24%	13%	460	0	700	380	100	C C C G C G T A G A C G C G C T G G A C G C C G C C T C C T C G C C G C								20%	14%	39%
ALMS1-NM_001378454.1eU10007-NP_001365383.1aa3325SL	0					0			2	8%	2%	250	120	740	80	470	A G G T G C T A G G C A C A A G A G A T G A T G A C C T C T C A G C C A								7%	9%	
ALS2-NM_001135745.2eU109-5'UTR-10	3	7%	2%	8%	2%	0			3	22%	3%	390	230	780	240	370	A G A A G G A A T G A T T T G G T G A G A G T G T T C C C A C T G A G	10%	7%		5%				20%	20%	25%
ALS2-NM_020919.4eU1367-NP_065970.2aa417SL	0					0			3	10%	5%	370	160	700	190	260	T G G C T G C T A C T T A T G A A G C T G G T G C C T T G T C A C T G A								4%	13%	14%

AMACR-NM_001167595.2eU432-NP_001161067.1aa134SL	0					0			2	9%	2%	220	400	630	190	480	T	C	A	A	C	T	A	T	T	T	G	G	C	T	T	G	T	C	A	G	G	T	G	T	C	T	C	C	A	A	A	A	A										8%	11%	
AMFR-NM_001144.6eU2041-NP_001135.3aa608SL	0					0			2	2%	1%	470	0	630	240	240	T	G	A	A	C	A	A	A	A	G	T	T	C	T	G	A	A	G	A	T	G	A	T	G	C	G	G	C	C	T	C	A	G	A	G	A										1%	2%	
AMFR-NM_001144.6eU2074-NP_001135.3aa619SF	0					0			3	12%	1%	530	170	690	340	240	A	G	A	G	C	T	T	C	C	T	C	C	C	C	T	C	G	G	A	A	G	G	T	G	C	G	T	C	C	T	C	T	G	A	C	C										14%	11%	12%
ANAPC11-NM_001002246.2eU136-5'UTR-61	1	4%		4%		0			2	16%	4%	320	150	730	280	370	G	C	C	A	A	C	G	G	A	A	G	G	G	C	G	G	A	G	A	C	G	G	A	G	T	T	T	C	G	T	C	A	T	G	T	T		4%								19%		13%
ANAPC11-NM_001002248.3eU134-5'UTR-61	0					0			3	21%	9%	320	150	730	280	370	A	A	G	G	G	C	G	G	G	T	A	G	G	G	C	G	A	G	A	C	G	G	A	G	T	T	T	C	G	T	C	A	T	G	T	T										12%	29%	24%
ANAPC11-NM_001002249.2eU195-5'UTR-61	0					0			2	31%	1%	320	150	730	280	370	T	G	C	A	G	A	C	G	A	G	C	T	G	C	G	G	A	G	A	C	G	G	A	G	T	T	T	C	G	T	C	A	T	G	T	T											30%	32%
ANAPC11-NM_016476.11eU166-5'UTR-61	0					0			2	33%	10%	320	150	730	280	410	G	A	T	T	A	G	G	T	T	G	G	C	G	A	A	G	A	G	A	C	G	G	A	G	T	T	T	C	G	T	C	A	T	G	T	T										40%		26%
ANAPC16-NM_001242546.2eU1263-3'UTR+450	0					0			3	20%	3%	580	260	460	390	250	A	A	A	A	A	G	T	T	A	T	T	T	T	G	C	A	G	A	T	G	A	A	T	G	T	T	T	T	C	A	A	C	T	C										16%	22%	21%
ANAPC4-NM_001286756.2eU467-NP_001273685.1aa125LL	0					0			2	12%	4%	500	190	740	380	250	G	A	T	G	G	A	A	G	T	G	A	C	A	G	T	A	G	A	A	A	G	C	A	G	T	G	T	T	C	T	C	A	C	A	T	C											15%	9%
ANAPC7-NM_001137664.2eU975-NP_001131136.2aa298FF	0					0			3	14%	4%	380	180	740	350	40	G	G	A	T	G	T	T	G	A	G	A	A	C	C	T	T	G	G	A	T	G	C	C	G	C	C	T	T	T	T	C	A	A	T	A	T										12%	19%	11%
ANKFY1-NM_001257999.3eU5295-3'UTR+1542	0					2	2%	0%	3	8%	2%	520	130	620	250	310	T	T	G	T	T	C	A	T	T	C	T	T	T	T	C	T	G	G	A	T	A	G	T	G	T	G	C	C	T	C	T	G	A	T					2%	3%				6%	8%	10%
ANKLE2-NM_015114.3eU2281-NP_055929.1aa749SS	0					0			3	22%	3%	400	250	610	450	40	G	A	A	T	T	T	G	C	A	A	A	A	T	A	T	A	G	G	A	C	G	T	A	G	C	G	T	T	T	C	C	A	A	G	A	C										24%	18%	23%
ANKLE2-NM_015114.3eU4357-3'UTR+1506	0					0			2	6%	3%	320	340	560	170	580	A	T	G	G	A	T	A	T	T	C	G	T	A	G	T	G	A	T	G	A	T	C	T	G	T	T	T	C	T	C	T	A	A	A	A										4%		8%
ANKRD10-XM_024449382.1eU720-3'UTR+82	0					0			3	10%	4%	320	210	710	300	210	C	T	T	G	C	T	G	A	A	C	A	G	G	T	A	T	G	G	A	A	G	C	T	G	T	C	T	T	T	G	C	T	G	T	T	A										6%	9%	15%
ANKRD11-NM_001256182.2eU6183-NP_001243111.1aa1884SL	4	5%	1%	6%	1%	0			3	21%	4%	350	210	950	230	410	C	T	G	T	C	A	C	C	C	G	T	C	T	C	C	A	G	G	G	C	G	T	C	T	T	C	C	A	A	G	T	T	6%	5%	5%	4%										17%	23%	24%
ANKRD13C-NM_030816.5eU1968-3'UTR+28	0					0			3	14%	5%	210	120	700	400	110	T	A	A	C	T	G	A	C	G	T	G	G	A	A	A	A	G	G	A	T	G	C	C	G	T	C	T	A	A	C	C	A	A	G	G	A										17%	8%	16%
ANKRD13C-NM_030816.5eU2582-3'UTR+642	0					0			3	25%	7%	470	240	750	190	350	T	G	T	T	G	C	A	A	T	A	C	A	T	T	T	C	A	G	A	A	G	G	A	G	C	G	T	T	C	A	C	T	C	T	G	C										26%	17%	31%
ANKRD33B-NM_001164440.2eU2192-3'UTR+309	0					0			3	27%	3%	350	360	770	380	510	T	A	A	A	G	A	T	C	A	A	T	T	T	A	T	C	A	A	G	G	G	C	G	T	T	T	C	T	C	C	G	T	A	A										28%	28%	24%
ANLN-NM_001284301.3eU2156-NP_001271230.1aa664SL	0					0			3	7%	1%	420	250	620	380	230	A	G	G	T	G	A	T	T	G	T	T	C	G	G	A	A	G	G	A	A	G	A	T	G	T	T	A	C	T	T	C	A	A	A	A	C										6%	7%	8%
ANTXR1-NM_032208.3eU2079-3'UTR+63	0					0			2	13%	1%	320	280	710	240	230	A	A	C	T	T	C	A	G	G	A	G	A	T	G	T	T	A	G	A	A	C	A	A	G	T	C	T	T	T	C	C	A	G	T	T	A											13%	14%
ANTXR1-NM_032208.3eU4813-3'UTR+2797	0					0			3	6%	2%	440	290	400	580	120	C	G	T	A	T	T	C	C	A	T	G	T	G	T	T	A	G	A	T	G	G	A	A	G	C	A	T	T	T	C	C	T	A	T	C	C										9%	4%	6%
ANXA7-NM_001156.5eU448-NP_001147.1aa134Q*	0					3	10%	2%	3	20%	3%	310	190	650	310	360	G	G	T	G	G	C	T	T	T	C	C	T	G	G	A	G	G	A	C	A	G	A	T	G	C	C	T	T	C	T	C	A	G	T	A	T						11%	7%	11%	16%	22%	22%
AOX1-NM_001159.4eU831-NP_001150.3aa246PS	0					0			3	15%	1%	400	340	690	430	310	T	T	T	G	G	C	A	G	T	G	A	G	A	G	A	A	T	G	A	T	G	T	G	G	T	T	T	C	C	C	C	C	G	T	G										14%	15%	16%
AP1S2-NM_001272071.2eU710-3'UTR+101	0					0			3	48%	10%	310	70	800	180	250	G	T	T	A	G	C	T	C	A	T	G	G	T	G	T	A	A	G	A	T	G	A	T	G	T	C	T	T	G	T	C	A	G	T	A	T										58%	38%	49%
AP1S2-NM_003916.5eU701-3'UTR+101	0					0			3	69%	5%	310	70	800	180	250	G	T	T	A	G	C	T	C	A	T	G	G	T	G	T	A	A	G	A	T	G	A	T	G	T	C	T	T	G	T	C	A	G	T	A	T										65%	68%	74%
AP2B1-NM_001030006.2eU1276-NP_001025177.1aa382II	0					0			3	2%	0%	340	190	620	230	280	A	G	C	T	G	T	G	C	G	G	G	C	C	A	T	T	G	G	A	C	G	G	T	G	T	G	C	C	A	T	C	A	A	G	G	T										2%	2%	2%
AP2B1-NM_001030006.2eU1720-NP_001025177.1aa530LL	0					0			3	3%	1%	460	200	640	230	260	A	G	A	C	C	G	G	G	C	T	A	T	A	T	T	T	A	T	T	G	G	C	G	C	C	T	T	C	T	C	T	C	A	A	C										3%	2%	4%
AP2B1-NM_001030006.2eU1758-NP_001025177.1aa543SF	0					0			3	24%	2%	360	150	790	180	230	A	C	C	C	T	G	T	T	A	C	A	G	C	T	A	A	A	G	A	A	G	T	A	G	T	C	T	T	G	T	C	T	G	A	G	A										25%	22%	25%
AP2B1-NM_001030006.2eU280-NP_001025177.1aa50LL	0					0			3	4%	1%	290	220	410	320	540	T	A	T	G	A	C	C	G	T	G	G	G	G	A	A	G	G	A	T	G	T	T	A	G	T	C	T	C	T	T	C	C										3%	3%	5%
AP2B1-NM_001030006.2eU3843-3'UTR+857	0					0			3	7%	2%	360	50	740	190	380	T	G	G	G	G	A	A	C	A	A	G	A	A	C	C	C	A	G	A	T	G	C	T	G	T	C	C	C	C	T	C	A	C	C	C	C										5%	9%	8%
AP2B1-NM_001030006.2eU990-NP_001025177.1aa287PL	0					0			2	2%	0%	490	220	360	590	190	A	C	A	A	T	A	T	G	C	T	G	C	T	G	A	A	G	A	A	G	T	T	A	G	C	C	C	C	T	C	A	C	T	T	G											2%	2%
AP4E1-NM_001252127.2eU2270-NP_001239056.1aa642PP	4	18%	7%	20%	6%	0			2	15%	6%	250	230	630	570	390	G	A	A	A	T	T	G	T	G	G	G	G	G	A	A	G	A	A	G	G	C	T	A	T	C	T	T	C	C	C	A	A	G	A	A	14%	20%	26%	12%									11%	19%
APH1A-NM_001077628.3eU604-NP_001071096.1aa133SF	0					0			3	4%	2%	270	280	660	180	520	T	C	T	C	C	T	T	C	G	G	T	A	T	C	A	T	C	A	G	T	G	G	T	G	T	C	T	T	C	T	C	T	G	T	A										3%	4%	6%
APOBEC3C-NM_014508.3eU322-NP_055323.2aa72LL	0					0			3	10%	2%	500	270	610	530	340	G	A	C	C	C	A	T	T	G	T	C	A	T	G	C	A	G	A	A	A	G	G	T	G	C	T	T	C	C	T	C	T	C	T	T	G										8%	13%	10%
APTX-NM_001195248.2eU1018-NP_001182177.2aa318RC	0					0			2	5%	0%	370	190	560	280	130	G	G	G	A	T	G	C	C	T	G	A	G	C	T	C	T	T	G	A	A	G	C	T	G	C	C	C	C	T	T	C	G	T	T	G	T										5%	5%	
AQP11-NM_173039.3eU738-NP_766627.1aa233PL	0					0			2	34%	12%	480	140	630	290	140	T	A	C	A	T	T	T	C	A	T	G	T	G	T	T	T	G	A	T	G	A	A	G	C	A	T	T	C	C	C	T	C	A	G	T										42%		25%
AQR-NM_014691.3eU545-NP_055506.1aa139SL	0					0			3	11%	2%	440	220	690	180	220	C	G	G	C	A	T	T	A	G	C	T	G	A	A	A	C	T	G	A	T	G	G	T	G	A	A	T	T	T	T	C	A	C	T	T	C										11%	12%	9%
ARF1-NM_001024226.2eU1661-3'UTR+935	0					0			3	6%	0%	450	130	670	260	280	A	C	C	C	C	A	C	C	T	C	T	G	T	G	T	G	A	T	G	T	A	G	C	T	T	T	C	T	C	C	C	T										5%	6%	6%
ARFGEF2-NM_006420.3eU1519-NP_006411.2aa447SL	0					0			2	8%	1%	390	190	740	370	310	G	T	G	T	G	G	C	C	T	T	G	T	C	C	A	A	A	A	C	G	G	C	G	T	C	T	C	T	T	C	A	G	T	G	C										8%	7%	
ARFIP1-NM_001025593.3eU2226-3'UTR+918	0					0			2	14%	2%	320	280	600	310	320	T	A	A	G	C	C	T	T	A	A	A	T	C	A	C	A	G	A	T	A	T	G	T	G	C	C	T	T	C	T	C	A	G	A	T	A										16%		13%
ARHGAP17-NM_001006634.3eU1839-NP_001006635.1aa577PP	0					0			3	4%	1%	240	280	560	430	360	G	G	G	G	C	C	G	A	G	C	C	C	A	G	G	C	G	A	C	G	G	C	A	G	T	C	C	T	C	C	C	A	A	A	C	C										3%	4%	5%
ARHGAP29-NM_001328664.2eU417-NP_001315593.1aa68SL	4	41%	12%	47%	2%	0			3	4%	1%	350	210	750	260	230	T	G	T	T	A	C	T	A	T	A	T	T	T	G	A	A	A	G	A	A	G	C	C	A	T	A	T	T	T	T	C	A	G	A	C	T	45%	49%	48%	24%								3%	4%	5%
ARHGAP5-NM_001030055.2eU167-5'UTR-135	0					0			3	15%	5%	520	200	650	320	190	A	T	G	A	T	C	C	C	T	A	T	G	A	T	C	T	T	G	A	A	G	A	T	G	T	T	C	T	G	C	A	C	A	G	A										21%	11%	14%
ARHGEF12-NM_001198665.2eU8950-3'UTR+3541	0					0			3	25%	2%	370	330	600	580	220	A	A	A	A	A	G	T	A	C	C	T	C	C	T	A	G	A	A	G	G	A	A	G	C	C	T	T	C	C	C	C	A	C	C	A										23%	26%	26%
ARHGEF9-NM_001173479.2eU2934-3'UTR+1473	0					0			2	19%	9%	440	290	630	610	230	T	G	T	T	C	T	G	G	C	A	C	T	C	A	A	A	G	A	A	G	G	C	C	G	T	G	T	T	T	C	C	A	A	C	A	T										12%		25%
ARID5B-NM_001244638.2eU2734-NP_001231567.1aa871PS	0					0			3	4%	1%	310	370	660	220	420	C	A	G	T	A	C	T	T	G	A	A	A	A	C	C	A	G	A	C	T	G	T	G	C	T	T	T	C	T	C	C	A	C	T	C										4%	5%	3%
ARL5A-NM_001037174.2eU696-3'UTR+167	0					0			2	6%	1%	340	70	650	350	190	A	C	T	T	A	T	T	T	G	A	A	A	A	C	A	A	A	G	A	T	G	A	A	G	T	C	T	C	A	C	C	T	T	C	C	A										6%	5%	
ARMC10-NM_001161009.3eU591-NP_001154481.1aa153SF	0					0			3	16%	9%	430	70	780	230	390	A	C	A	T	C	A	G	T	C	A	A	G	T	A	T	G	T	G	A	G	G	A	T	G	T	C	T	T	C	T	C	T	G	G	T	C										5%	20%	22%
ARPC1A-NM_001190996.2eU453-NP_001177925.1aa93LL	0					0			3	3%	1%	330	290	650	330	320	C	G	C	G	C	A	G	C	T	A	C	T	T	T	G	T	G	A	A	G	T	G	G	T	C	C	C	C	C	C	T	A	G	A	G										2%	4%	4%
ASB16-NM_080863.5eU1914-3'UTR+466	2	22%	11%	30%		0			3	25%	4%	220	110	490	200	120	G	G	C	T	T	C	T	T	G	A	G	A	C	A	C	C	T	G	C	T	G	A	C	C	T	C	T	A	G	C	C	G	G	A	C	C			30%	14%							23%	29%	23%
ASCC1-NM_001198798.2eU1491-3'UTR+110	0					0			3	45%	10%	320	290	650	360	180	A	G	G	G	A	T	G	G	T	G	G	A	C	A	T	T	T	G	G	A	T	G	G	T	G	A	C	T	T	T	C	C	T	G	G	G	T										40%	57%	39%
ASMTL-NM_001173473.2eU1161-NP_001166944.1aa314SF	0					0			2	3%	1%	410	90	690	220	180	A	C	G	T	C	T	A	C	C	T	G	G	C	A	T	C	G	G	A	T	G	G	C	G	A	A	T	A	C	T	C	T	C	T	G	C										4%		2%
ASNS-NM_001178075.2eU408-NP_001171546.1aa101AV	0					0			3	27%	7%	360	220	710	260	250	A	A	A	C	A	A	T	T	T	G	T	A	T	G	T	T	G	G	A	T	G	G	T	G	T	T	T	G	C	A	T	T	T	G										20%	30%	33%
ASPM-NM_018136.5eU8974-NP_060606.3aa2914II	0					0			2	5%	0%	350	150	790	180	190	A	G	T	C	T	A	T	T	T	A	C	A	G	A	T	C	A	G	A	A	G	C	A	G	T	G	T	T	A	T	C	A	T	T	A	T										5%		4%
ASXL2-NM_001369346.1eU1662-NP_001356275.1aa514LF	0					0			2	9%	3%	520	140	780	370	330	A	G	C	C	C	A	G	A	A	A	G	C	C	T	C	A	A	G	A	G	G	A	A	G	T	C	T	T	C	C	C	T	C	A	C	C										11%	7%	
ATAD1-NM_001321967.2eU1207-3'UTR+48	0					0			3	6%	2%	450	90	550	290	310	A	C	A	G	T	T	C	A	G	T	G	A	T	C	T	A	G	T	T	T	G	G	T	G	T	G	C	C	T	C	T	T	A	T	C										8%	5%	4%
ATAD2-NM_014109.4eU103-NP_054828.2aa5RC	0					0			2	2%	0%	480	360	580	460	280	G	G	C	C	A	G	T	A	G	G	G	A	G	A	A	G	A	T	G	G	T	G	G	T	T	C	T	C	C	G	C	A	G	C										1%		2%
ATAD2-NM_014109.4eU1424-NP_054828.2aa445PL	0					0			3	20%	1%	490	280	510	610	190	T	A	G	C	A	G	C	T	C	T	A	A	A	A	G	A	G	A	T	G	G	T	G	G	T	G	T	T	T	C	C	A	T	T	A	C										18%	21%	20%
ATAD5-NM_024857.5eU5489-NP_079133.3aa1703Q*	0					0			2	5%	1%	530	280	560	230	430	A	G	T	C	T	T	G	A	G	A	G	T	A	A	T	G	A	T	G	G	A	T	G	G	A	C	T	T	C	T	C	A	A	A	G	C											5%	4%
ATAD5-NM_024857.5eU5913-NP_079133.3aa1844PL	0					0			3	5%	1%	260	220	640	320	200	A	G	A	C	T	G	T	G	A	A	T	A	C	T	T	G	G	C	A	G	C	T	G	A	C	T	T	C	C	C	T	T	A	A	T										5%	4%	6%
ATF4-NM_001675.4eU40-5'UTR-849	0					0			2	33%	15%	310	130	770	210	390	T	A	C	T	T	T	G	C	C	C	G	C	C	C	A	C	A	G	A	T	G	T	A	G	T	T	T	C	T	C	T	G	C	G	C										23%		43%
ATF4-NM_182810.3eU37-5'UTR-247	0					0			3	30%	2%	310	130	770	210	390	T	A	C	T	T	T	G	C	C	C	G	C	C	C	A	C	A	G	A	T	G	T	A	G	T	T	T	C	T	C	T	G	C	G	C										32%	30%	28%
ATF6B-NM_001136153.2eU1672-NP_001129625.1aa545PS	0					0			3	5%	2%	300	230	690	230	210	C	A	G	A	A	G	T	C	T	C	A	G	C	C	A	C	G	G	A	A	G	A	G	C	A	C	C	T	C	C	A	G	T	T										3%	7%	6%
ATG14-NM_014924.5eU986-NP_055739.2aa326PP	4	28%	14%	34%	11%	0			2	7%	1%	300	230	460	410	290	T	C	T	G	T	C	T	A	T	A	C	T	T	G	A	T	G	T	A	A	A	T	C	T	T	C	C	A	A	A	A	A	45%	24%	32%	12%											7%	6%
ATG5-NM_001286106.2eU833-NP_001273035.1aa205PS	0					0			3	11%	2%	320	240	680	320	270	G	A	A	A	G	A	C	C	T	T	T	C	A	T	T	C	A	G	A	A	G	C	T	G	T	T	C	G	T	C	C	T	G	T	G										10%	9%	13%
ATIC-NM_004044.7eU1139-NP_004035.2aa352TI	0					0			3	6%	2%	290	200	740	230	170	T	T	G	C	C	C	C	A	G	G	A	T	A	T	G	A	A	G	A	A	G	A	G	C	C	T	T	G	A	C	A	A	T	A	C										4%	8%	7%
ATL3-NM_001290048.2eU2586-3'UTR+667	0					0			2	10%	2%	350	260	690	460	410	T	T	T	G	T	A	T	T	T	T	T	A	G	T	A	G	A	G	A	T	G	G	G	T	T	C	A	C	C	A	T	G	T	T										12%		9%
ATMIN-NM_001300728.2eU2182-NP_001287657.1aa591TI	0					0			3	10%	2%	300	170	760	210	340	A	C	A	C	A	G	A	G	A	C	C	C	A	A	A	C	T	G	A	A	G	G	A	G	T	C	T	C	C	A	C	T	G	C	T	A										13%	8%	9%
ATM-NM_000051.4eU8144-NP_000042.3aa2665PL	0					0			3	11%	4%	190	250	660	290	410	A	A	C	T	T	A	A	G	A	A	T	T	T	A	G	A	A	G	A	T	G	T	T	G	T	C	C	C	T	A	C	T	A										8%	9%	16%
ATP13A3-NM_001367549.1eU2192-NP_001354478.1aa556SF	0					0			3	17%	2%	330	290	740	80	400	A	T	T	C	A	C	T	T	A	C	A	A	A	A	A	T	T	G	A	A	G	A	G	A	G	T	G	C	T	C	T	C	T	G	G	T	G										15%	18%	17%
ATP13A3-NM_001367549.1eU5338-3'UTR+1042	0					0			3	10%	3%	350	240	670	330	210	A	A	T	A	C	T	G	G	A	T	T	T	G	A	A	T	G	G	C	T	G	C	C	G	T	T	T	T	T	C	A	A	G	C										6%	12%	12%
ATP13A3-NM_001367549.1eU6514-3'UTR+2218	0					0			3	6%	1%	410	160	770	100	410	A	C	T	C	A	G	T	G	C	C	A	T	A	G	A	T	A	G	A	C	T	G	A	G	T	C	T	T	C	T	C	T	C	G	T	A										4%	7%	7%
ATP2B1-NM_001001323.2eU4041-3'UTR+141	0					0			2	11%	7%	400	220	520	350	320	A	T	G	A	C	A	C	T	G	A	T	G	C	C	G	A	A	G	A	T	G	A	T	G	C	T	C	T	A	C	A	A	A	A	C										16%	6%	
ATP2B4-NM_001001396.3eU3818-NP_001001396.1aa989SL	0					0			3	20%	7%	540	210	630	430	190	G	A	A	A	G	A	T	C	C	A	T	G	G	A	G	A	G	A	A	G	A	A	C	G	T	C	T	T	T	T	C	A	G	G	C	A										13%	20%	27%
ATP5MC2-NM_001002031.4eU624-3'UTR+12	0					0			3	5%	1%	250	390	730	130	300	C	A	T	C	C	T	C	T	T	T	G	C	C	A	T	G	T	G	A	A	G	G	A	G	C	C	G	T	C	T	C	A	C	C	T										3%	5%	6%
ATP5PD-NM_001003785.2eU404-NP_001003785.1aa117PL	0					0			3	12%	1%	340	240	600	520	240	T	G	A	C	C	A	T	T	G	A	G	G	A	C	T	T	G	A	A	T	G	A	A	G	C	T	T	T	C	C	C	A	G	A	A	A										12%	11%	13%
ATP5PD-NM_006356.3eU476-NP_006347.1aa141PL	0					0			3	12%	1%	340	240	600	520	240	T	G	A	C	C	A	T	T	G	A	G	G	A	C	T	T	G	A	A	T	G	A	A	G	C	T	T	T	C	C	C	A	G	A	A	A										12%	13%	11%
ATP6AP1-NM_001183.6eU1168-NP_001174.2aa384LL	0					0			3	5%	1%	360	120	600	340	540	C	A	G	C	A	G	C	C	T	G	A	G	C	A	A	G	A	A	G	G	G	T	A	G	T	C	T	C	C	T	C	G	T	G	G	C										7%	4%	5%
ATP6AP1-NM_001183.6eU369-NP_001174.2aa118SF	0					0			2	4%	0%	550	310	640	310	120	T	G	T	T	T	G	G	A	A	A	C	A	A	G	C	A	G	G	A	C	A	G	C	G	C	C	T	T	T	T	C	T	A	A	C	C										4%		4%
ATP6V0A1-NM_001130020.3eU1524-NP_001123492.1aa464SF	0					0			3	11%	3%	390	350	610	350	430	G	A	T	A	C	A	T	T	A	T	T	T	T	A	T	T	G	A	T	G	G	G	T	G	T	T	C	T	C	A	T	G	T										12%	13%	8%
ATP6V0B-NM_001039457.3eU168-5'UTR-7	0					0			3	6%	2%	310	260	720	140	220	G	C	T	G	G	C	C	G	T	G	G	G	T	T	C	C	T	G	A	C	G	G	A	G	A	C	T	T	C	G	C	C	C	T	T	C										9%	4%	6%
ATP6V0B-NM_001294333.2eU217-NP_001281262.1aa46PS	0					0			2	2%	1%	310	260	720	140	220	G	A	T	G	T	G	G	C	A	T	G	G	T	T	C	C	T	G	A	C	G	G	A	G	A	C	T	T	C	G	C	C	C	T	T	C										2%		1%
ATP6V1C1-NM_001695.5eU2052-3'UTR+721	0					0			3	20%	7%	380	210	740	180	100	G	G	T	C	A	G	A	A	C	A	C	A	A	A	T	T	T	G	A	A	G	A	T	G	A	C	T	T	T	T	C	A	G	T	A	T										15%	28%	17%

ATP6V1D-NM_015994.4eU309-NP_057078.1aa68SL	4	8%	3%	9%	1%	0	3	70%	1%	480	210	780	270	300	T G G G C G A A G T G A T G A G A G A A G C T G C C T T T T C	A C T A G	10%	9%	8%	3%	70%	71%	69%
ATP6V1H-NM_015941.4eU291-NP_057025.2aa15PL	0					0	2	6%	1%	190	350	560	420	260	A T A T C C G A G G T G C T G T G G A T G C T G C T G T C C C	A C C A						7%	6%
ATPAF2-NM_145691.4eU306-NP_663729.1aa51Q*	0					0	2	6%	3%	450	250	750	410	210	G C C C C G C C G A C A G A A A G G A A G A G G T T T A T C	A G A A T					8%		4%
ATPSCKMT-NM_001258388.2eU707-3'UTR+41	0					0	2	10%	0%	260	180	580	320	290	G A G T G T T T T T C T G A A A T A T T G T A G T C T T C C	T G A T C					10%		10%
ATRN-NM_001207047.3eU2795-NP_001193976.1aa914Q*	0					0	3	10%	5%	290	200	770	190	320	T C C T A T A A A G G A C C A G T G A A G A T G C C T T C G	C A A G C C					6%	16%	9%
ATXN10-NM_001167621.2eU1129-NP_001161093.1aa300SF	0					0	3	14%	2%	260	390	770	80	360	G T G G T T G C G T G A G A G C A G A A G G T G A C A T C T	C C A A T G					13%	16%	14%
AVL9-NM_015060.3eU666-NP_055875.1aa149Q*	4	23%	9%	27%	3%	0	3	19%	2%	220	420	780	370	550	C A T G C A T A T T T T G A A G A G A A G G A T T T T T C	C C A A A T T	30%	28%	23%	10%	20%	16%	20%
AZIN1-NM_001301668.3eU333-5'UTR-259	0					0	3	4%	2%	340	380	680	360	300	A A T T C C G C C G A A A A A G A G A A G A C G C T T T A C	C C G A C T					3%	3%	6%
AZIN1-NM_001301668.3eU61-5'UTR-531	0					0	3	4%	1%	310	70	680	150	140	T T T T C C T T T T T T C T T C T G C C G T C G C C T T C T	C T G C C T					3%	3%	5%
B3GNT2-NM_001319075.2eU1365-3'UTR+64	0					0	2	3%	0%	500	70	700	140	270	G T A T T T T G A A T A G T T C C C A T G T T G T G T T C T	C A C A T T					3%		3%
B3GNT2-NM_001319075.2eU997-NP_001306004.1aa297SF	0					0	3	36%	7%	310	140	750	210	370	T G A A G T A C T A C A T C C C A G A A G T T G T T T A C T	C T G G C C					29%	38%	43%
B4GALT1-NM_001378495.1eU163-NP_001365424.1aa45TI	0					0	2	7%	0%	320	90	690	250	300	G C C G C C T G C C C C A A C T G G T C G G A G T C T C C A	C A C C G C						7%	7%
B4GALT1-NM_001378495.1eU3478-3'UTR+2291	0					0	2	8%	0%	290	120	710	80	280	T G C T C C C C C C A T T T G C T G A C G T A G T G C T C T	C A T G G G						8%	8%
BAG3-NM_004281.4eU997-NP_004272.2aa234PL	0					0	2	1%	0%	420	230	420	610	230	C C T T C C A C C A A G C C C A G A A G A C G C A C T A C C	C A G C G C					2%	1%	
BAIAP2-DT-NR_026857.1eU1953-ncr	0					0	3	12%	1%	410	350	700	170	310	G G G A G T T T T G C T A A A C A G A A G G A G C C C T T T	C T G A G G					12%	11%	13%
BAIAP2-NM_001144888.2eU396-NP_001138360.1aa98HY	0					0	3	7%	3%	490	130	680	180	150	A A T C A G C T G G A A G A A A T G C T G A A G T C T T T T	C A C A A C					4%	8%	9%
BAMBI-NM_012342.3eU1172-3'UTR+12	0					0	3	17%	5%	360	160	750	180	190	G A A G C T G G A A T T C G T A T G A C G G A G T C T T A T	C T G A A C					11%	19%	21%
BAP1-NM_004656.4eU2872-3'UTR+552	1	3%		3%		0	3	6%	1%	500	230	570	220	540	T G T C C C T G T T G T A A G G A A G C C A G G T C T T C T	C T C T T C 3%					8%	5%	6%
BASP1-NM_001271606.2eU968-3'UTR+200	0					0	3	14%	6%	260	100	630	270	200	C C C A A G G A A A A A T A C A G G A T G T T G T C C C A T	C A A G G G					12%	9%	20%
BAZ1A-NM_013448.3eU4064-NP_038476.2aa1261PP	0					0	2	4%	1%	380	160	500	580	220	C T C T C A A G A A G A G G A A G A A G T C A G C C T A C C	C A A C C G						3%	4%
BAZ2A-NM_001300905.2eU1715-NP_001287834.1aa504PL	0					0	2	5%	1%	280	330	660	330	180	C T C C C G T A A C T T C C C C A G C A G C T G C C T T T C	C A A C A G					5%	6%	
BAZ2A-NM_001300905.2eU1863-NP_001287834.1aa553PP	0					0	3	7%	3%	290	280	610	490	330	T A T T G C T A C C C C C A G A A G A A G T T C G T C T T C	C C C C T C C A					9%	4%	9%
BAZ2A-NM_001300905.2eU7717-3'UTR+1801	0					0	3	8%	2%	420	250	650	310	80	C C T C A T A G C C T A T T T C T A A A G T C G C C T T T T	C T G T C A					8%	7%	10%
BCAM-NM_001013257.2eU774-NP_001013275.1aa236HH	0					0	2	3%	0%	380	100	320	580	330	C C G C A A G G A T G A C C G A G A C G C C A G C T T C C A	C T G C G C					2%	3%	
BCAR1-NM_001170714.3eU3413-3'UTR+378	0					0	3	3%	0%	360	190	550	290	310	T G A C A G G G C C A G T G C A G T T T G G T G T G C C T	C C G C C T					3%	3%	3%
BCKDHB-NM_001318975.1eU2844-3'UTR+1787	0					0	2	36%	23%	540	110	480	350	390	G G A C C A T T A G C C C A C A G A T G C A T G T A T T C T	C T C A G A					19%		52%
BCL10-NM_001320715.2eU1283-3'UTR+334	0					0	3	5%	3%	540	370	530	460	370	A A T A G A C C C T T A C T A G G A A G A A C G T T T T T	C C T C A G					8%	6%	3%
BCL10-NM_001320715.2eU1886-3'UTR+937	0					0	3	20%	1%	210	290	750	310	510	T G T A T T A T T T T T G T A G A G A C G G T G T T T T G C	C A T G T T					19%	22%	21%
BCL2L12-NM_001040668.1eU1096-NP_001035758.1aa138PP	4	4%	1%	4%	2%	0	3	60%	5%	290	220	780	240	270	C T T C C T G A G C C G C C T T C G A A G A T G T C T T C C	C T G C T C 6%	3%	4%	3%		66%	58%	56%
BCL2L12-NM_001282516.1eU1099-NP_001269445.1aa139PP	3	5%	1%	5%	1%	0	3	64%	3%	290	220	780	240	270	C T T C C T G A G C C G C C T T C G A A G A T G T C T T C C	C T G C T C 5%	4%	4%			67%	64%	61%
BCL2L1-NM_001191.4eU1318-3'UTR+424	0					0	2	2%	0%	430	40	400	320	310	A G A T T G C C T T T G T T T T G A T G T T T G T G G C C T	C A G A A T					3%	2%	
BCL7C-NM_004765.4eU750-NP_004756.2aa206PL	0					0	3	6%	2%	420	210	640	470	350	G T G A C A C A G A G G A C T C G G A G G G T G C C C C C C	A C T C A					4%	9%	5%
BCL9-NM_004326.4eU3770-NP_004317.2aa1040PL	0					0	3	19%	4%	440	70	700	310	180	A G A C T G T G G C C A G C T C A G A T G A C G A C T C C C	C T C C A G					19%	15%	23%
BCORL1-NM_001184772.3eU5967-3'UTR+130	0					0	3	45%	12%	310	200	820	270	120	A T A A T A C G G A C C A A C A A G A A G C C G C C T T A T	C A A T G C					44%	33%	57%
BECN1-NM_001313998.2eU1804-3'UTR+321	0					0	3	3%	1%	520	170	550	340	210	A A C T G A G T T G A A T T G A G A T T G A T G T G T T T	C A C T G G					2%	3%	3%
BEND7-NM_001378149.1eU2360-3'UTR+589	0					0	2	26%	6%	340	300	740	270	460	T C A T T G T C C A T T A T A A A G A A G T G G T T C T C T	C T T C C C					30%		21%
BICD1-NM_001003398.3eU1245-NP_001003398.1aa254Q*	0					0	2	12%	6%	190	420	690	380	350	C A A A A G A A C A A C C T G C G G A A G G A G C T C T C C	C A G T A T						7%	16%
BIN1-NM_001320632.2eU1458-NP_001307561.1aa416PL	0					0	3	11%	3%	220	410	660	200	460	A G G A G C T G G A G A A G T G C C G T G G C G T C T T C C	C G A G A					9%	10%	15%
BIN1-NM_001320632.2eU1716-3'UTR+230	0					0	3	5%	3%	400	50	630	250	310	T C A C C A G T G T T C C T G A A G C T G C T G T G T C C T	C T A G T T					4%	8%	4%
BLCAP-NM_001167820.2eU1472-3'UTR+815	0					0	3	8%	5%	340	160	650	260	440	G C T C T G C A G C A T T G A A G T A T G G T G T G T T C A	C G T A G T					5%	13%	5%
BLMH-NM_000386.4eU1294-NP_000377.1aa390TI	4	10%	4%	12%	2%	0	3	63%	1%	300	270	720	380	390	C A G A G A A G G A T G A T C A G G A T G G T G C T T T C A	C A A A A T 14%	9%	12%	5%		62%	62%	64%
BLOC1S6-NM_001311255.1eU330-NP_001298184.1aa64HY	0					0	2	13%	4%	430	290	510	350	630	G T G G A G C A A C T G G C A G A A G G A T T G C T T T C T	C A T T A T						10%	16%
BLOC1S6-NM_012388.4eU240-NP_036520.1aa59HY	0					0	3	15%	4%	430	290	510	350	630	G T G G A G C A A C T G G C A G A A G G A T T G C T T T C T	C A T T A T					19%	11%	14%
BMS1-NM_014753.4eU704-NP_055568.3aa212PL	1	3%		3%		0	3	37%	2%	290	170	470	520	390	T A A A A C A C A G G T T C T G G A C G G A A G T T A C C C	G G G T G 3%					39%	36%	37%
BNC1-NM_001301206.2eU4688-3'UTR+1479	0					0	2	5%	0%	220	230	540	320	330	T T A C C C A G C T G T T T A A T A T T C C A G T C T T C C	C A A A G T					5%		5%
BNIP1-NM_001205.3eU97-NP_001196.2aa28Q*	0					0	3	14%	1%	380	290	710	300	220	A A A T T T G A C C T G G A G G T G A A G G C G C T T A T T	C A G G A T					15%	13%	13%
BNIP1-NM_013979.3eU97-NP_053582.2aa28Q*	0					0	3	26%	9%	380	290	710	300	220	A A A T T T G A C C T G G A G G T G A A G G C G C T T A T T	C A G G A T					21%	20%	37%
BNIP3L-NM_001330491.2eU1866-3'UTR+1201	0					0	3	7%	3%	300	210	720	220	170	A C T G G T C A T T T T C T C A T G T A G C T G T C T T T T	C A G T T A					7%	5%	10%
BNIP3L-NM_004331.3eU87-NP_004322.1aa4HY	0					0	2	11%	3%	370	180	630	140	270	A G T C C T G C C A G C T G T C C G A C A A T G T C G T C C	C A C T A					9%	13%	
BNIP3-NM_004052.4eU1380-3'UTR+678	4	38%	10%	43%	5%	0	3	7%	3%	270	170	750	190	180	A T G A T C A G T T T T C T G C T G A A G G C A C C T A C T	C A G T A T 48%	38%	42%	26%		4%	6%	10%
BOP1-NM_015201.5eU250-NP_056016.1aa61SL	0					0	2	2%	0%	430	280	770	220	350	G C G T C T C C G A C A G C G A G G A A A G T G T G T T C T	C A G G C C					3%		2%
BPNT1-NM_001286149.2eU1760-3'UTR+850	0					0	2	17%	10%	260	300	680	380	470	T T T G T A T T T T T A G T A G A G A A G G T G T T C A C	C G T G T T					10%	24%	
BRCA1-NM_007294.4eU1529-NP_009225.1aa472PP	0					0	3	10%	2%	380	240	460	450	510	G A A A A C C T A T C G G A A G A A G G C A A G C C T C C C	A A A C T T					9%	12%	8%
BRD3-NM_007371.4eU2580-3'UTR+204	0					0	3	12%	5%	330	170	720	80	470	T G C G T T A G A C T T G A T G A G A A G G T G T G A A C T	C T G C A G					11%	7%	17%
BRF2-NM_018310.4eU685-NP_060780.2aa203R*	0					0	3	17%	11%	340	260	680	200	460	T A C G T G G A A G A C A A A G A G A A G A T G C T G T C T	C G A A C A					12%	10%	29%
BSDC1-NM_001143888.3eU148-NP_001137360.1aa41Q*	0					0	3	36%	25%	210	220	720	310	310	T T T A T G A A G C G G G A C C T G A C G G A G T T T A C C	C A G G T G					15%	30%	64%
BSDC1-NM_001143888.3eU523-NP_001137360.1aa166Q*	0					0	2	3%	0%	300	320	470	360	490	C C C C C G G A A T T G T T T G A C G C C T G G C T T T C C	C A G T T C					3%		4%
BSDC1-NM_018045.8eU148-NP_060515.3aa41Q*	0					0	3	27%	7%	210	220	720	310	310	T T T A T G A A G C G G G A C C T G A C G G A G T T T A C C	C A G G T G					20%	32%	29%
BTAF1-NM_003972.3eU2162-NP_003963.1aa619HY	0					0	3	18%	10%	310	70	770	270	140	G C T T G G C T T T G C T T G A T G A T G C A G C C T T C T	C A T T T A					14%	29%	9%
BTBD6-NM_001387567.1eU639-NP_001374496.1aa154HY	0					0	3	11%	5%	340	210	640	350	310	C C C C C G G G G G C G A C C A G G A C G G T G C C G C C	C A C A A G					6%	10%	15%
BUB1B-NM_001211.6eU1876-NP_001202.5aa575PL	0					0	3	25%	5%	500	210	650	390	170	A A A G C A T C A C C T C A A A T G A A G A T G T G T C T	C A G A T G					21%	31%	24%
BUD31-XM_005250671.5eU259-5'UTR-272	0					0	3	7%	2%	290	170	680	170	220	T T G C T G A G G A C A C C T A A G A T G A C G C A A T C T	C C G C G C					6%	9%	6%
C11orf49-NM_001003676.3eU1834-3'UTR+964	0					0	2	21%	0%	290	210	710	210	390	A T A T G A A G G G T G G G C C A G A A G A T G A T T T C A	C T T G C A					21%		21%
C12orf75-NM_001145199.2eU752-3'UTR+359	1	1%		1%		0	3	6%	1%	440	210	630	100	460	T C A G C A C A T T T C A T G G A G G T C A T G T C T T T T	C A C T G A	1%				5%	6%	7%
C16orf95-NM_001195124.3eU977-3'UTR+107	0					0	2	36%	0%	280	70	790	140	390	A G G A G G C G T C T G T G A C A G T C G C T G T C T T C T	C A G A A C						36%	36%
C17orf80-NM_001100621.3eU2517-3'UTR+625	0					0	3	33%	2%	310	260	820	210	370	G G G T T G G G A A A A T A A T T G A A G A T G T T T C T	C A A G T C					32%	32%	36%
C18orf25-NM_001008239.3eU3645-3'UTR+2246	0					0	2	9%	2%	170	370	670	270	460	T T T C C C A A T T C C A C A C A G C A G G T G A T T T C C	C G T G T G						10%	7%
C18orf54-NM_001288980.2eU1791-NP_001275909.1aa493SF	0					0	3	41%	16%	400	260	750	210	340	A G A T T A A A C A A G T T T C A G A A G A T G A T T T C T	C T A A A T					59%	36%	28%
C1orf52-NR_024113.2eU511-ncr	0					0	2	7%	0%	340	180	700	260	260	G A G A C C T A C A C C A C T G A G A A G A A G C C T C C	G C T C C A						7%	7%
C1R-NM_001354346.2eU2020-NP_001341275.1aa648SF	2	2%	1%	2%	1%	0	3	25%	4%	620	110	570	350	470	T C C G G G G A A A G A A T A G G A T G G A T G T G T T C T	C T C A A A 3%	2%				22%	29%	24%
C2CD5-NM_001286173.2eU4035-3'UTR+621	0					0	3	24%	5%	240	270	690	80	440	G A A A A T A A T T T A T C A T A G C T G G T G T C C T T T	C A T T G A					23%	21%	30%
C2orf68-NM_001013649.4eU604-3'UTR+21	0					0	3	12%	1%	210	500	780	150	420	C C A A C A C T G A C C A T G T T G A A G G C G T T C T C T	C C A G G C					11%	12%	14%
C4orf46-NM_001008393.4eU283-NP_001008394.1aa66SL	0					0	3	42%	8%	380	130	740	270	200	T G G A G C T G C A G A T C G G A G A C G C A G C C T T T T	C A T T A A					42%	49%	34%
C5orf22-NM_018356.3eU2023-3'UTR+602	0					0	3	19%	4%	350	200	740	390	350	A A T T T T A T A A A A A T A G A G A T G G G T C T C A C	C A T G T T					13%	21%	21%
C5orf51-NM_175921.6eU5163-3'UTR+4254	0					0	2	9%	4%	240	330	600	190	380	A T G T A T T A T G T A T T T A T G C T G G T G T T C T T T	C A T G T T						6%	12%
C6orf120-NM_001029863.2eU1725-3'UTR+801	0					0	2	8%	2%	350	200	710	220	200	T A C T A T A A A A T A C T T T G G A A G A T G A A T T C T	C T A C C T						9%	6%
C6orf89-NM_001286635.2eU4690-3'UTR+3450	0					0	2	8%	1%	260	60	690	230	230	C G A A G A A G A C A G C T G T G G A T G T C G T T G A C	T G A G T G					9%	7%	
C7orf26-NM_001303039.2eU1696-3'UTR+374	0					0	3	40%	4%	480	70	670	350	310	G C C T C T T T C C T C G T G A A G A C G A T G T G T C C C	C G C C A G					40%	44%	35%
C8orf33-NM_023080.3eU1070-3'UTR+355	0					0	3	5%	2%	320	80	680	180	290	T A A C A A A G A T T A G T G G A G A A G C T G T A T A A T	C G T A C A					6%	3%	6%
C8orf82-NM_001001795.2eU473-NP_001001795.1aa93PL	0					0	2	10%	2%	330	300	670	530	240	A C C G C A G C G G G C G C T A C G A G G C C G C T T T C C	C T T C C					8%		12%
CALCOCO2-NM_001261390.2eU1927-3'UTR+460	0					0	3	5%	1%	320	360	590	220	350	C C T T C C T C C T C A T C C T T G G T G T T G C T T T C T	C C A A A T					4%	6%	4%
CALM1-NM_001363669.2eU207-5'UTR-57	0					0	2	5%	2%	530	210	640	360	220	A A C A G A T T G C T G A A T T C A A G G A A G C C T T C T	C C C T A T					4%	6%	
CALM1-NM_006888.6eU255-NP_008819.1aa18SF	0					0	3	5%	1%	530	210	640	360	220	A A C A G A T T G C T G A A T T C A A G G A A G C C T T C T	C C T A T					5%	5%	4%

CALR-NM_004343.4eU177-NP_004334.1aa36RC	0				0	3	3%	1%	440	260	560	370	470	C A G T T T C T G G A C G G A G A C G G G T G G A C T T C C C G C T G G															2%	3%	3%
CAMLG-NM_001745.4eU888-NP_001736.1aa272TI	0				0	3	5%	2%	260	150	710	180	390	A T A C C T A T A G C A A A A T G G G C G A A G T C T T C A C A G A T C															7%	3%	4%
CAMSAP2-NM_001297707.3eU3295-NP_001284636.1aa787TI	0				0	2	5%	1%	370	420	600	420	250	C C C A G A A A A A G A A A A T G G A A G C T G C T T T T A C C A A A C															5%	6%	
CANT1-NM_001159772.2eU3286-3'UTR+1694	0				0	2	5%	0%	580	140	630	420	0	C A C A G C C C A G G T G C C C G G A A G C A G C C T C T T C G C A T A															4%	5%	
CANX-NM_001024649.2eU4324-3'UTR+2459	0				0	2	8%	1%	380	130	710	220	110	T C T C A C C A C G T G A G T T T G A T G C A G T C T T T T C T G T C T															7%		9%
CANX-NM_001024649.2eU4824-3'UTR+2959	0				0	2	24%	5%	270	170	570	330	370	G T A T G A A A G A C A T A T T T G A T T G T T G T T T T C T C T T G A T																20%	27%
CAP1-NM_001105530.2eU1921-3'UTR+428	0				0	3	5%	1%	370	290	670	280	330	G C A T G A A G G T A G C A G A A G C T G G T G T G T T T C C A G A T G															4%	5%	4%
CAPZB-NM_001206540.3eU454-NP_001193469.1aa118SF	0				0	3	2%	1%	320	170	690	210	320	G A G A C C T G T A T T T T G A A G G T G G C G T C T C A T C T G T C T															3%	3%	2%
CARHSP1-NM_001042476.2eU746-NP_001035941.1aa129TI	0				0	3	3%	1%	420	70	710	250	300	A G A A G C T G C A G G C C G T G G A G G T C G T C A T C A C T C A C C															2%	3%	4%
CASC3-NM_007359.5eU281-NP_031385.2aa90SL	0				0	3	19%	6%	260	180	660	190	480	A A G A T G G C A T T G A A G G T G A T G C T G T T C T C T C G G A T T															19%	13%	25%
CASC3-NM_007359.5eU3702-3'UTR+1578	3	8%	0%	8%	0%	0	3	77%	3%	360	130	810	210	230	C C C T T T G C C T T A A A C C T G A A G A T G T C T C C T C A A G C C 8%			9%		8%									78%	73%	79%
CASP2-NM_001224.5eU1698-3'UTR+671	0				0	3	3%	0%	150	80	650	80	400	T G A A G A G C C T G A C A A G T G A A G T T G T A A A C A C A G T G T															2%	3%	3%
CASP4-NM_001225.4eU888-NP_001216.1aa280SL	0				0	3	13%	9%	670	180	680	460	0	A C T C T C C A G C A T C C T T G G A A G T G G C C T C T T C A C A G T															6%	23%	9%
CASP7-NM_001227.5eU540-NP_001218.1aa158PL	0				0	3	12%	3%	200	210	670	290	330	A T G T A A T T T A T G G G A A A G A T G G T G T C A C A C C A A T A A															14%	9%	13%
CASTOR2-NM_001145064.3eU3413-3'UTR+2142	0				0	2	41%	13%	470	150	620	190	210	T T C T G T C A T T T C C C C C T G A C G G T G T C A C T T C T C T G C																32%	50%
CAT-NM_001752.4eU253-NP_001743.1aa58TI	0				0	3	33%	10%	390	170	690	410	320	G G C C C C T T C T T G T T C A G G A T G T G G T T T T C A C T G A T G															42%	36%	23%
CAV1-NM_001172895.1eU2246-3'UTR+942	0				0	3	2%	0%	370	240	460	610	400	T G G G C T G G C A G T C C T G G A A G C C A G C T T T C C C T G C C T															2%	2%	3%
CAV2-NM_001206747.2eU2923-3'UTR+2390	0				0	3	7%	1%	280	230	640	140	390	C T G G G G G A G G T A T A T G A T G A G C A G A C T T C T C G G A A T															7%	7%	8%
CBX6-NM_001303494.2eU3119-3'UTR+1908	4	13%	6%	16%	3%	0	3	77%	5%	470	210	790	220	290	C G T G A C T T T T T T G T A A A G A A G T T G T G T T T T C A G A G G 18%			16%		13%		5%							83%	73%	77%
CCAR1-NM_001282959.2eU505-NP_001269888.1aa135FF	0				0	2	6%	2%	610	380	580	180	520	G C A A A C C C A G C C T C A G A A G C A G C G T G T T T C A C A G G																4%	7%
CCBE1-NM_133459.4eU5373-3'UTR+4071	0				0	2	3%	0%	570	260	610	430	220	A G T G G G G C T G C A G A G A G A A T G G T G C C T T T T C T C A C C															3%		3%
CCDC117-NM_001284263.2eU682-NP_001271192.1aa176TI	0				0	3	5%	0%	370	240	670	250	220	G T T T G A A G A G G G A A T T T G A T G A A G T T T T A C A A A G A															4%	5%	5%
CCDC127-NM_145265.3eU571-NP_660308.1aa167TI	0				0	3	45%	7%	200	260	710	190	450	T T T T G C T G A A A G A A T T T G A A G C T G T T C T C A C A G A A A															46%	38%	52%
CCDC59-NM_014167.5eU82-NP_054886.2aa24TI	0				0	2	6%	2%	390	270	710	360	440	G T A T T G A G G C G C G T G G T G A A G G G G T T T C C A C T G T C G															4%	7%	
CCDC6-NM_005436.5eU1613-3'UTR+56	0				0	3	2%	0%	230	210	770	180	300	G T T G G G A C T C A T C C A A T G G A G C C G T C T A C T C A A C G C															2%	2%	3%
CCDC97-NM_001346100.2eU3132-3'UTR+1607	0				0	3	10%	2%	360	110	700	370	340	C A A A G G A G G C C T G G A A A G A T G T T G C T T C C T C A A G G C															11%	8%	11%
CCHCR1-NM_001105563.3eU1391-NP_001099033.1aa397LF	0				0	2	4%	1%	400	300	750	310	530	C T G A A C C G C T G G C G G G A G A A G G T G T T T G C C C T C A T G																4%	3%
CCN2-NM_001901.4eU632-NP_001892.2aa144PP	0				0	2	2%	0%	250	110	520	410	330	G C C C C T G T G C A G C A T G G A C G T T C G T C T G C C C A G C C C															2%		2%
CCND3-NM_001760.5eU395-NP_001751.1aa79PL	0				0	3	10%	4%	430	240	740	450	250	A G G A G C A G C G C T G T G A G G A G G A A G T C T T C C C C C T G G															7%	14%	8%
CCNH-NM_001199189.2eU1371-3'UTR+20	0				0	3	76%	3%	270	260	760	210	260	A A T C T C T C T A A C C A T T T G A A G T T G A T T T C T C A A T G C															74%	75%	79%
CCNYL1-NM_001142300.2eU3314-3'UTR+2130	0				0	3	8%	3%	390	240	530	350	420	T T T G A A A T A C T A A G A A G A G G T T A G T G T T C T C A A C T A															8%	5%	12%
CCP110-NM_001199022.3eU779-NP_001185951.2aa206SL	3	14%	6%	14%	6%	0	3	6%	1%	270	200	730	190	330	A A G A A A C T C T T A T T T C T G A T G G T C C C T T C T C A G T A A 14%			20%		8%									6%	7%	5%
CCT6A-NM_001009186.2eU1534-NP_001009186.1aa484LL	0				0	3	3%	0%	520	190	530	150	520	G A T G A G A T C A T G C G A G C T G G A A T G T C T T C T C T G A A A															3%	3%	3%
CCT8-NM_001282907.2eU1484-NP_001269836.1aa354SF	0				0	3	3%	1%	360	270	700	210	200	T T A A G C A T G A A A A G G A A G A T G G C G C C A T T T C T A C C A															2%	4%	3%
CCT8-NM_001282907.2eU851-NP_001269836.1aa143SF	0				0	3	2%	1%	500	0	650	210	110	A A A A C C T T C G A G A T A T T G A T G A A G T C T C A T C T C T A C															2%	2%	3%
CD164-NM_001142401.3eU744-3'UTR+100	0				0	3	4%	2%	300	340	620	420	140	T T A A G A T G T C C C A C A T G G A A G A C G C T A T T C C A G G A T															2%	6%	4%
CD2AP-NM_012120.3eU1418-NP_036252.1aa321PL	0				0	3	34%	3%	330	370	790	320	310	G C G A A C T T A A T G G T A A A G A A G G A G T A T T T C C A G A C A															31%	33%	38%
CD44-NM_000610.4eU4705-3'UTR+2343	0				0	3	3%	1%	410	150	780	180	350	G C C T G A A G T T A T G G A A T A A G A T G T A T T C T C A C T C C															2%	5%	3%
CDC25C-NM_001287582.2eU839-NP_001274511.1aa199LL	0				0	2	9%	2%	300	330	650	390	430	G A G A T T T C A G A T G A A T T A A T G G A G T T T T C C C T G A A A															11%	7%	
CDC27-NM_001114091.4eU1799-NP_001107563.1aa559SL	0				0	3	6%	2%	320	240	620	280	350	T T T G G C A T C T T C A A A A A G A T G T T G C T C T T T C A G T T C															5%	5%	9%
CDC37-NM_007065.4eU1276-3'UTR+76	0				0	2	2%	0%	350	190	530	290	240	C C C T T T T C A G A A A A C A G A T A G A T G C C A T C T C G C C C G															1%	2%	
CDC42SE2-NM_001038702.2eU1118-3'UTR+464	0				0	3	21%	7%	330	200	570	300	190	A T A T C T G C A T G C T T T A T G A A G T T G T T G C T T C G G T A A															24%	14%	27%
CDC7-NM_003503.4eU91-5'UTR-72	0				0	3	22%	9%	240	270	740	180	400	G C A T C T G G G G A G C C A C A G A A G T C G T A C T C C C T T A A A															12%	24%	29%
CDCA4-NM_017955.4eU568-NP_060425.2aa159HH	0				0	3	10%	4%	370	180	720	350	410	T G G C C C T C G A G A A A A C A G A G G A A G C T T T C A C A A G T C															8%	15%	7%
CDCA5-NM_080668.4eU1486-3'UTR+665	0				0	3	33%	5%	460	260	740	220	290	T A A G T G T G T A C T A C A C A G A A G C T G T G T T T T C T A G T T															28%	31%	38%
CDCA7-NM_031942.5eU1016-NP_114148.3aa308SS	0				0	3	11%	4%	320	210	710	330	150	T G A A G A T G A C C T G C C C A G A A G C C G T C G C T C C A G A T C															6%	13%	13%
CDCP1-NM_022842.5eU1734-NP_073753.3aa548TM	4	7%	3%	8%	1%	0	3	46%	3%	210	300	810	330	400	T A C C T T A T T T C A A A G A G G A A G G C G T T T T C A C G G T G A 10%			8%		7%		3%							43%	49%	46%
CDH2-NM_001308176.2eU431-NP_001295105.1aa113PL	0				0	3	6%	2%	370	310	730	240	290	A G T C A G C A G A A G T T G A A G A A A T A G T G T T C C C A A G A C															4%	6%	7%
CDH2-NM_001792.5eU274-NP_001783.2aa56LF	0				0	2	2%	0%	740	220	380	430	330	T C G A A G G A T G T G C A T G A A G G A C A G C C T C T T C T C A A T															2%	2%	
CDIP1-NM_001199054.2eU639-NP_001185983.1aa144HY	1	6%		6%		0	2	16%	0%	440	160	760	310	390	G A G G G A G C G C C T G T G C A G A C G G T G T G C C C C A C T G C 6%															15%	16%	
CDK13-NM_003718.5eU3502-NP_003709.3aa1039TI	0				0	2	15%	8%	300	110	680	280	380	A G C A G A T G G G C A T G A C T G A T G A T G T T T C C A C A A T T A																10%	21%
CDK19-NM_001300960.2eU5371-3'UTR+3661	0				0	3	24%	7%	310	130	730	290	370	C T C T A T G C C T C T A A A A T G A T G C T G T T T T C T C T G C T A															17%	31%	25%
CDK4-NM_000075.4eU305-NP_000066.1aa50PP	0				0	3	2%	1%	460	180	730	540	180	C A A T G G A G G A G G A G G T G G A G G A G G C C T T C C C A T C A G															1%	2%	2%
CDK6-NM_001145306.2eU1212-NP_001138778.1aa250PL	0				0	3	19%	5%	260	400	580	270	370	A A G A A G A C T G G C C T A G A G A T G T T G C C C T T C C C A G G C															13%	20%	24%
CDK6-NM_001145306.2eU2008-3'UTR+564	0				0	3	12%	8%	310	350	630	380	240	A C A G G C A T T T G T T C A C T G A A G G T G A T T C A C C A A A A T															12%	5%	21%
CEBPZOS-NM_001322373.2eU3065-3'UTR+2617	0				0	3	9%	1%	410	190	730	360	410	T T T G T A T T T T T A G T A G A G A T G G G G T T T C A T C A T G T T															8%	11%	9%
CELF1-NM_001172640.2eU2686-3'UTR+1077	0				0	2	20%	6%	360	140	780	240	290	T T G A T T G A G G T G T C C C A G A T G T A G T A T T C C C A C A G G															24%	16%	
CENPF-NM_016343.4eU112-5'UTR-58	0				0	3	12%	6%	290	200	770	400	470	A G A A C T G T A C T C T C C G A G A G G T C G T T T T C C C G T C C C															18%	5%	14%
CENPH-NM_022909.4eU1195-3'UTR+399	0				0	3	25%	4%	350	260	640	460	410	T T T T G T A T T T T A G T A G A G A C G G G G T T T C A C C G T G T T															27%	20%	28%
CENPO-NM_001199803.3eU1702-3'UTR+768	0				0	3	23%	7%	260	200	740	200	280	C C T C G C C T C A C A A A G C G G A A G C C G T A C T C T C G G A G G															15%	25%	28%
CENPQ-NM_018132.4eU194-NP_060602.2aa31SL	0				0	3	30%	2%	400	150	750	260	170	G A A A A A A G G A T A A T G A G G A A G T T G T G T T G T C A G A G A															28%	32%	31%
CENPQ-XM_005249205.1eU242-XP_005249262.1aa31SL	0				0	3	26%	10%	400	150	750	260	170	G A A A A A A G G A T A A T G A G G A A G T T G T G T T G T C A G A G A															25%	37%	17%
CENPX-NM_001271006.2eU709-3'UTR+446	0				0	3	64%	3%	340	210	660	510	220	A T G C G A T A T T C C C C T T G G A A G A T G C T T C C C C A G G C T															64%	60%	67%
CENPX-NM_144998.4eU189-NP_659435.2aa58Q*	0				0	3	9%	1%	300	230	740	330	460	G A C G T G G A C C A G C T G G A G A A G G T G C T T C C G C A G C T G															8%	8%	10%
CEP250-NM_001318219.1eU1250-5'UTR-877	0				0	3	24%	14%	280	210	800	180	380	A G G A A T G C G C A A G A G G A G A A G T T G T C T T T A C A G C A G															40%	20%	13%
CEP350-NM_014810.5eU3015-NP_055625.4aa890SF	0				0	3	22%	5%	350	210	770	250	370	C T G T G A A A G A T G A T A A T G A A G A T G T T T T C T C T G C C A															18%	19%	28%
CEP55-NM_001127182.2eU1038-NP_001120654.2aa286Q*	0				0	3	7%	1%	220	120	700	100	400	G T T C A C A A T T T A A A T C A G C T G T T G T A T T C A C A A A G A															7%	7%	5%
CEP55-NM_001127182.2eU1459-NP_001120654.2aa426PL	0				0	3	4%	1%	310	120	600	400	120	C T G A A A A C A G A G A A A A A G T T G C C G C C T C A C C A A A A A															4%	2%	5%
CEP55-NM_018131.5eU290-5'UTR-36	0				0	3	4%	2%	350	150	490	410	210	C G G C T G G G C G C C T C A A G A C C G T T G T C T C T T C G A T C G															3%	2%	6%
CEP57L1-NM_001350652.2eU248-5'UTR-81	0				0	3	16%	2%	350	260	690	460	410	T T T G T A T T T T T A A G A G A G A C G G G G T T T C A C C A T G C T															17%	14%	16%
CEP89-NM_032816.5eU964-NP_116205.3aa294Q*	1	8%		8%		0	3	39%	5%	150	240	880	80	500	A A G C T C A A A G A G G C T G A G A A G G C G T C G T C A C A G G A A			8%												35%	44%	37%
CERS2-NM_022075.5eU317-NP_071358.1aa33YY	0				0	3	6%	1%	590	100	440	500	200	C G A T C T A G A A G A C C G A G A T G G A C G T G T C T A C G C C A A															5%	6%	6%
CERT1-NM_001130105.1eU1144-NP_001123577.1aa336PL	0				0	3	9%	5%	360	330	650	320	100	A A G T G G T A G A A G A T G A T G A A G A T G A T C T T T C C T A C A A															14%	5%	8%
CFL1-NM_005507.3eU785-3'UTR+203	4	1%	0%	1%	0%	0	3	4%	1%	350	230	560	370	220	C C C T C C A T C C C T T G A C G G T T C T G G C C T T C C C A A A C T 1%			1%		1%		0%							4%	4%	5%
CFL2-NM_001243645.2eU385-NP_001230574.1aa60LL	0				0	3	4%	1%	390	140	580	270	300	C C C T A C A C A T C T T T T G T G A A G T T G C T A C C T C T G A A T															3%	4%	5%
CGAS-NM_138441.3eU2661-3'UTR+976	0				0	3	14%	3%	350	260	690	500	330	T T T G T A T T T T T A G T A A A G A T G G G G T T T C A C C A T G T T															15%	17%	11%
CHAC2-NM_001008708.4eU130-NP_001008708.1aa16PL	0				0	2	5%	1%	430	380	550	640	360	A C G G G T C C C T G A T C T G G A A G G T G G A T T T C C C C T A T C															6%	4%	
CHAMP1-NM_001164144.3eU1557-NP_001157616.1aa414PL	0				0	3	16%	6%	280	220	530	610	460	T G T C T C C T G A A C A T T G G A A G G C A G T T C C C C A G T G T															8%	21%	18%
CHAMP1-NM_001164144.3eU1875-NP_001157616.1aa520SF	0				0	2	4%	2%	330	270	490	400	600	C A G C C T C A G A T A T C T G G A A G C C T G T T C T C T C T A T C G															3%		5%
CHD2-NM_001271.4eU3692-NP_001262.3aa1040HH	0				0	3	10%	3%	310	340	630	330	490	A G A T G A A G A A G A G C T A G A A G A G C G T C C T C A C A G G A															13%	11%	8%
CHD3-NM_001005271.3eU5338-NP_001005271.2aa1776TI	0				0	2	2%	0%	260	240	770	140	330	T C A T G T T C A A T A T C G C C G A T G G T G G C T T C A C A G A G C																2%	2%
CHD9-NM_001308319.2eU5512-NP_001295248.1aa1754SL	0				0	3	11%	5%	460	60	720	400	290	T T A A A G A T G A T A T A G A G G A T G A T G T T T C C T C A C C A G															17%	8%	8%
CHEK1-NM_001114121.2eU2535-3'UTR+207	0				0	3	38%	8%	430	320	790	330	450	T T T G T A T T T T T A G T A G A G A T G G G G T T T T T C A T G T T															39%	44%	29%

CHEK1-NM_001114122.3eU2881-3'UTR+580	0					0			3	19%	4%	300	510	700	250	390	ATTAATTAAAATTGCAAGTAGGTGTTTTTCCAGTG								16%	23%	18%
CHIC2-NM_012110.4eU847-3'UTR+44	0					0			3	12%	5%	280	250	640	400	210	TATAGAGACTTTCCAAGTATGTTGTCTTTCCAATGG								9%	10%	18%
CHM-NM_000390.4eU741-NP_000381.1aa239R*	0					0			2	14%	4%	230	120	690	180	390	ATTGATTTAGTATCAAAGCTGCTGTATTCTCGAGGA								17%		11%
CHMP5-NM_016410.6eU623-NP_057494.3aa198TI	0					0			3	29%	5%	290	280	680	220	570	CTGCACCTGCAATTCCAGAAGGTGTTCCCACTGATA								27%	25%	34%
CHORDC1-NM_001144073.2eU2677-3'UTR+1640	0					0			2	14%	8%	340	300	690	440	370	TGTTCATACTTCCTTCTGAGGCTGTTTTCCCCTAAA									20%	9%
CHP1-NM_007236.5eU1332-3'UTR+629	0					0			3	7%	3%	430	60	640	380	140	ATTAAATGGGCCTCTGGGATGTTGCCTCTTCAGGAG								5%	10%	6%
CHPF2-NM_001389651.1eU915-5'UTR-616	0					0			2	13%	10%	280	290	660	60	500	GGAGGGGTTCCTGTAGCCGTTGCGTCTTCTCAAACA								6%		21%
CHSY1-NM_014918.5eU3777-3'UTR+776	0					0			3	7%	1%	350	260	690	460	410	TTTGTATTTTTAGTAGAGACGGGGTTTCACCATGCA								6%	8%	7%
CIC-NM_001304815.2eU4291-NP_001291744.1aa1406PS	0					0			3	10%	3%	210	400	770	290	460	AACAAGGGCTTTGGTCGGAAGGTGTTTTCACCCTGTG								7%	12%	12%
CIC-NM_001304815.2eU8132-3'UTR+503	0					0			2	9%	4%	260	400	690	420	380	TGGGTTGTACTTTCTAAGAAGGTGATTCCCCCTGCC								6%		12%
CIRBP-NM_001280.3eU165-NP_001271.1aa27SL	0					0			2	3%	1%	530	160	740	350	290	CCAATGAGCAGTCGCTGGAGCAGGTCTTCTCAAAGT								4%		2%
CIT-NM_001206999.2eU221-NP_001193928.1aa46LF	0					0			3	15%	0%	360	80	720	170	350	CCCTTTATGACTCAACAGCAGATGTCTCCTCTTTCC								15%	15%	14%
CKAP2L-NM_001304361.2eU793-NP_001291290.1aa116HY	3	8%	1%	8%	1%	0			3	7%	5%	310	210	660	310	390	GGAGTAAAACCCTCAAGGACGGTTCCCTCTCACTTT	9%	7%	7%					13%	3%	4%
CLDND1-NM_001040181.2eU321-NP_001035271.1aa83TT	0					0			3	13%	3%	310	160	690	310	370	CACAGTGGGATTGTGGAGACGGTGTATCACCATACC								10%	15%	14%
CLK1-NM_001162407.1eU1788-NP_001155879.1aa485Q*	0					0			3	2%	0%	310	220	510	260	460	TGTAAACCTCTGAAGGAATTTATGCTTTCTCAAGAT								2%	2%	2%
CLK2-NM_001294338.2eU317-NP_001281267.1aa5R*	0					0			3	9%	2%	410	50	650	340	140	GGCCTCGCCGCCAGAACGATGCCGCATCCTCGAAGG								12%	9%	8%
CLNS1A-NM_001293.3eU660-NP_001284.1aa194Q*	3	2%	1%	2%	1%	0			3	22%	1%	470	290	510	350	630	ACACTGGAGAGATTAGAAGGAATGCTTTCTCAGTCT	2%	1%	1%					21%	24%	22%
CLPTM1L-NM_030782.5eU1040-NP_110409.2aa261SF	0					0			3	3%	1%	450	100	710	300	170	TCTGGATCCACATGCAGGACGCCGTGTACTCCCTGC								2%	4%	2%
CLPTM1L-NM_030782.5eU1706-NP_110409.2aa483AV	0					0			3	6%	1%	320	230	710	180	150	CTTTCAACACCTTCATTGATGACGTCTTTGCCTTCA								5%	7%	6%
CLSPN-NM_001190481.2eU4396-3'UTR+460	0					0			2	3%	0%	350	260	690	460	410	TTTGTATTTTTAGTAGAGACGGGGTTTCACCATGTT								3%		3%
CLTC-NM_001288653.2eU4531-NP_001275582.1aa1432PS	0					0			3	2%	1%	250	370	640	200	340	TTGTTAAATGATTTGCTGATGGTGCTGTCTCCACGG								2%	3%	2%
CLUH-NM_001366661.1eU416-NP_001353590.1aa105Q*	0					0			2	2%	0%	160	290	660	210	380	ATCGAGCCCTTCTCCCTGCAGGTGTCCCCCAGGAG								2%	2%	
CLUH-NM_001366661.1eU4331-3'UTR+181	0					0			3	10%	1%	380	360	740	250	390	GGCCTGCCTGCCCCGCAGAAGGTGTTTTGCGCTGG								9%	11%	9%
CLUH-NM_001366661.1eU4562-3'UTR+412	0					0			3	7%	2%	320	460	550	290	530	CTGAGTGGGTGACGCGCAGACGGGATTTCTCAGGTC								5%	8%	8%
CLU-NM_001831.4eU1445-3'UTR+20	0					0			3	3%	0%	420	190	610	380	160	GGGAGGAGTGAGATGTGGATGTTGCTTTTGCACCTA								3%	2%	3%
CMTM6-NM_017801.3eU802-3'UTR+143	0					0			3	4%	2%	350	220	630	540	290	GCAAGGGGAAGGTCAAGAAGGCAGTTTTATCAATAT								6%	2%	5%
CMTR1-NM_015050.3eU2646-NP_055865.1aa828SF	0					0			2	4%	1%	330	220	750	290	360	AGGACAAGCTGTCCAAGGAGGACGTCCTCTCCTTCA								4%		5%
CNBP-NM_001127192.2eU71-5'UTR-66	0					0			3	3%	1%	170	450	660	320	300	AAACAGCCTCTACCTTGCGAGCCGTCTTCCCCAGGC								3%	3%	2%
CNDP2-NM_001168499.2eU801-NP_001161971.1aa240SF	1	1%		1%		0			3	10%	3%	350	240	840	190	260	TGTCCCTCCATGGCATCGAAGGCGCCTTCTCTGGGT		1%						11%	7%	12%
CNDP2-NM_001370248.1eU120-NP_001357177.1aa5TI	0					0			2	6%	2%	360	250	450	500	380	TGGGGTCTGGTTGAAAGATGGCGGCCCTCACTACCC								4%		7%
CNDP2-NM_001370254.1eU175-5'UTR-925	0					0			2	4%	0%	360	250	450	500	380	TGGGGTCTGGTTGAAAGATGGCGGCCCTCACTACCC								4%		4%
CNOT2-NM_001199302.2eU1010-NP_001186231.1aa183R*	0					0			3	8%	3%	270	200	720	230	260	ATAATATGTATGCCAAAGCAGCAGCCTTTTCGACAG								5%	10%	7%
CNOT6-NM_001370472.1eU4251-3'UTR+2190	4	32%	10%	37%	1%	1	7%		2	5%	1%	350	130	720	300	110	TGTATTTGTTAATGGAGGATGTCATCTTTTCATAGA	36%	38%	39%	17%			7%		5%	6%
CNOT8-NM_001301073.2eU201-5'UTR-15	0					0			3	23%	4%	310	150	850	140	140	TGTAAAACTAGTTAGCTGAAGACGACTTCTCAGGTT								21%	21%	28%
CNOT8-NM_001301075.2eU249-5'UTR-139	0					0			2	33%	1%	310	150	850	140	140	TGTAAAACTAGTTAGCTGAAGACGACTTCTCAGGTT								32%	33%	
CNPPD1-NM_001321389.1eU472-NP_001308318.1aa15SF	4	35%	9%	39%	3%	2	17%	2%	3	37%	10%	370	340	800	230	300	GGCTCCTGCTGGACGAAGAAGGCACCTTCTCCCTCG	37%	42%	38%	22%	16%		19%	41%	44%	25%
CNPPD1-NM_015680.6eU141-NP_056495.4aa15SF	4	33%	14%	40%	5%	2	15%	2%	2	25%	3%	370	340	800	230	300	GGCTCCTGCTGGACGAAGAAGGCACCTTCTCCCTCG	43%	35%	42%	12%		16%	13%	28%		23%
CNPY2-NM_014255.7eU362-NP_055070.1aa57RW	4	24%	9%	29%	0%	1	2%		2	3%	1%	380	330	670	360	270	CCCAAGAAGACCATTCAGATGGGATCTTTCGGATC	29%	29%	29%	11%			2%	2%	3%	
CNPY4-NM_152755.2eU111-5'UTR-2	1	2%		2%		0			3	29%	12%	310	220	770	260	260	AGCGGTGATTGTTTGTAGACGGCGCTTTGTCATGGG		2%						26%	19%	42%
CNRIP1-NM_001371604.1eU531-NP_001358533.1aa96PL	0					0			3	9%	3%	280	290	730	250	430	CGGGTACATATGACACAGAAGGTGTGACCCCAACGA								10%	6%	11%
COASY-NM_001042529.3eU430-NP_001035994.1aa116TI	0					0			3	27%	2%	340	150	790	140	240	ATCTCGCCCACCCGCCAGAAGGTCGTGTTGACAGATT								25%	29%	28%
COG1-NM_018714.3eU2414-NP_061184.1aa800PL	0					0			3	23%	6%	320	370	730	370	300	AAAAACAGATTAAGAAAGAAGGTGCATTTCCAGTCA								18%	29%	22%
COL12A1-NM_004370.6eU7842-NP_004361.3aa2510LL	0					0			2	2%	0%	210	200	720	80	340	TTGTGAAACTGCCACTTCAAGTTGTCCTCTCATTTA								2%	2%	
COL1A1-NM_000088.4eU18-5'UTR-102	0					0			3	7%	3%	510	320	440	670	290	GCCAGTCGTCGGAGCAGACGGGAGTTTCTCCTCGGG								8%	9%	4%
COL1A1-NM_000088.4eU225-NP_000079.2aa36PL	0					0			3	3%	1%	290	140	700	220	220	GCCAAGTCGAGGGCCAAGACGAAGACATCCCACCAA								2%	3%	3%
COL3A1-NM_000090.4eU5182-3'UTR+664	0					0			2	2%	0%	230	200	260	80	180	GCTGGTCAAGATTACTAATATTGGGAAGGCTTTAA										2%
COL5A1-NM_000093.5eU6443-3'UTR+541	0					0			3	5%	2%	210	360	680	250	280	AGGCCAAATGTCATTCTGCAGGTGCCTTCCCGATGG								6%	2%	5%
COLGALT1-NM_024656.4eU2598-3'UTR+664	0					0			3	2%	1%	350	260	690	460	410	TTTGTATTTTTAGTAGAGACGGGGTTTCACCATGTT								3%	2%	3%
COPA-NM_001098398.2eU341-NP_001091868.1aa87FF	0					0			3	3%	1%	450	210	680	180	260	TTGGAATTACAAGCTTCGGCGCTGTCTTTTCACATT								3%	4%	2%
COPG1-NM_016128.4eU2789-3'UTR+60	0					0			3	9%	3%	410	290	570	270	200	TTCCCCAACACTACCTGGAAGTTGTGCCTTCCTCAT								6%	10%	12%
COPS7A-NM_001164093.2eU1216-3'UTR+18	0					0			3	3%	1%	380	200	550	400	390	CAAGTCGAATTGAAAGGACTGTCGTTTCCTCCCTGG								2%	3%	4%
COPS7B-NM_001282949.3eU2150-3'UTR+1364	0					0			3	46%	10%	260	130	680	420	370	GTGGTTCAGGAAAATGTGATGCTGTTTCCCCATGTT								34%	50%	53%
COPZ1-NM_001271734.2eU1260-3'UTR+762	0					0			2	2%	1%	350	150	530	150	400	CCTGTGGGATCGTTGCCTGGTTTGTCTTCTCTGTGT									2%	3%
COQ10B-NM_001320818.2eU333-NP_001307747.1aa108FF	0					0			3	9%	2%	380	310	580	390	200	AAAGGCATCTTGTACTGATGGGAGACTTTTCAATCA								10%	7%	11%
COQ9-NM_020312.4eU256-NP_064708.1aa77HY	0					0			2	3%	1%	310	200	660	60	450	GGGGCAGAAAAACCTGATCCAGAGTCTTCTCATTCA								2%		3%
CORO1C-NM_001105237.2eU1597-NP_001098707.1aa516SS	0					0			3	27%	1%	400	420	500	490	310	CACAATCTGCAATCAAGATGAGCGTATTTCCAAGTT								25%	28%	27%
COX10-NM_001303.4eU2171-3'UTR+737	0					0			2	7%	3%	420	300	570	380	200	ACATATAGACACTGTTGGAAGCAGTTCCTTCTAAAA								10%		5%
COX5A-NM_004255.4eU533-3'UTR+21	0					0			2	3%	1%	350	470	530	470	330	CAAAGTGTAAACCGCATGGATGGGCTTCCCCAAGGA									4%	2%
COX5B-NM_001862.3eU139-NP_001853.2aa38PP	0					0			3	13%	1%	560	180	740	490	250	GCGCTCCATGGCATCTGGAGGTGGTGTTCCCACTGA								12%	13%	15%
COX6A1-NM_004373.4eU37-NP_004364.2aa8SL	0					0			3	10%	1%	360	90	670	170	390	GATCAAAAATGGCGGTAGTTGGTGTGTCCTCGGTTT								12%	9%	10%
COX6B1-NM_001863.5eU158-NP_001854.1aa22PP	0					2	1%	0%	3	7%	0%	260	300	540	590	200	CAAGACCGCCCCTTTTGACAGCCGCTTCCCCAACCA					1%		1%	7%	6%	6%
CPLANE1-NM_001384732.1eU5336-NP_001371661.1aa1719FF	0					0			3	48%	2%	430	260	790	180	250	CAAGTCCATTAAAACTAGAAGATGTATTTTCAAAGC								48%	48%	48%
CPNE3-NM_003909.5eU1450-NP_003900.1aa432TI	0					0			3	40%	3%	280	160	710	80	440	TGCTTTTGATTATTACTGATGGTGTGATCACAGACC								40%	42%	37%
CPNE3-NM_003909.5eU4561-3'UTR+2792	0					0			3	28%	2%	300	240	700	340	440	TTTTGTAAACTTCCTGGAAAGCTGTCTTCACTAAGT								27%	28%	30%
CPOX-NM_000097.7eU707-NP_000088.3aa200FF	0					0			3	50%	14%	510	310	540	430	370	CAGCTGTGTACTTCAAGATGGGTGTGTTTCGAAAA								37%	50%	64%
CPSF2-NM_001322270.2eU4405-3'UTR+1956	0					0			3	30%	8%	350	160	760	140	360	CCTCATGCTGTTCTTGTGATGGTGAGTTCTCATGAG								25%	26%	39%
CPSF2-NM_001322270.2eU4634-3'UTR+2185	0					0			3	17%	8%	420	320	690	500	410	TTTGTATTTTTAGTAGAGACGGGGTTTCTCCATGTT								24%	9%	19%
CPZ-NM_001014447.3eU1279-NP_001014447.2aa404PS	0					0			3	13%	4%	460	310	810	210	490	AAGCACCCCCAGGAGGAGAAGATGTTTTCCCCACG								9%	16%	15%
CREB5-NM_001011666.3eU661-NP_001011666.1aa215Q*	0					0			3	10%	2%	240	70	640	270	220	TCACCAGCAACACAACAGATGCAGCCAACCCAGACA								8%	10%	11%
CREBL2-NM_001310.4eU2068-3'UTR+1408	0					0			3	47%	8%	350	230	730	100	480	TTCCCATGGTTAAAACAGGAGTTGTGTTCTCTGTCG								38%	48%	55%
CRIP2-NM_001270837.2eU949-NP_001257766.1aa216LL	0					0			3	16%	4%	250	240	770	80	440	AAGGTGTACTTCGCTGAGAAGGTGACGTCTCTGGGC								15%	13%	20%
CRNKL1-NM_001278625.2eU1461-NP_001265554.1aa477HY	0					0			3	13%	3%	410	170	740	210	350	CAGTACGAAGAAGAAGTGAAGGCGAATCCACACAAT								16%	10%	13%
CRTAP-NM_001393363.1eU1591-3'UTR+405	0					0			3	2%	1%	300	330	750	390	450	TTTGTATTTTTAGTAGAGACGGGGTTTTGCCATGTT								2%	3%	3%
CRTAP-NM_001393363.1eU1831-3'UTR+645	0					0			2	2%	0%	350	190	660	310	540	TTACCATTTTGGTTTGAAGGGCAGTCTTCTCTGGCT								3%	2%	
CSNK1A1-NM_001025105.3eU4170-3'UTR+2597	0					0			3	18%	7%	290	300	430	430	560	TACAAATGAATATTTGGAGGTTTGCTTTCACAATGA								12%	16%	25%
CSNK1G1-NM_001329606.2eU5734-3'UTR+4133	0					0			3	12%	6%	440	190	860	140	290	ACTTCCATGGCAGCCAAGAAAACGTCTTCTCAGAGG								10%	19%	8%
CSPP1-NM_001291339.2eU3282-NP_001278268.1aa739PL	0					0			3	22%	4%	330	190	750	220	360	CATATCCTGCCATTGAAGATGACGTCCTCCCTCCAC								26%	23%	19%
CTBP2-NM_001083914.3eU250-5'UTR-161	0					0			3	43%	12%	300	310	770	280	390	AATGGTTTTGAACCAATGAAGGTGTATTCCCTTAAA								44%	55%	31%
CTBP2-NM_001329.4eU291-5'UTR-161	1	6%		6%		0			3	36%	14%	300	310	770	280	390	AATGGTTTTGAACCAATGAAGGTGTATTCCCTTAAA		6%						22%	36%	50%
CTDP1-NM_001202504.1eU579-NP_001189433.1aa150HY	3	12%	9%	12%	9%	0			2	12%	2%	330	210	780	350	410	TTTTTAGACCCCGAGAAGAAGCTTTTTTCTCACCGA	22%	6%	8%					11%		14%
CTDSP2-NM_005730.4eU1082-NP_005721.3aa263TI	0					0			2	5%	2%	330	150	760	230	340	AGGAGCTGAGCGGAGCAGAGGACGTCTACACCAGCC								3%		6%
CTDSPL2-NM_016396.3eU2385-3'UTR+816	0					0			3	5%	2%	530	150	680	180	230	AAGATTTAAACCATTGTGATGGTGTATTCCTCAAA								5%	3%	6%
CTNNA1-NM_001290307.3eU3348-3'UTR+734	4	28%	8%	32%	2%	3	1%	0%	3	7%	1%	300	310	820	240	450	AGGAAGCAGTCCCTGGAGAAGGCATGTTCCCAGAAA	34%	30%	34%	16%	1%	2%	1%	6%	8%	8%

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DNMT3A-NM_001320893.1eU3294-3'UTR+974	0					0			3	25%	4%	490	160	840	190	300	A	A	G	G	G	A	G	A	C	A	G	C	T	T	G	C	A	G	A	T	G	G	C	G	C	G	T	T	C	T	C	A	C	G	G	T																		

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MBIP-NM_001144891.2eU918-NP_001138363.1aa290PL	4	47%	6%	48%	6%	1	9%		2	25%	2%	380	300	650	430	150	A T A A A A T C C T T G A A T T G G A A G G C A T C T C T C C T G A A T	56%	45%	45%	43%		9%		26%	23%
MBIP-NM_016586.3eU918-NP_057670.2aa290PL	4	52%	11%	56%	10%	2	7%	1%	3	21%	5%	380	300	650	430	150	A T A A A A T C C T T G A A T T G G A A G G C A T C T C T C C T G A A T	67%	52%	49%	40%	6%	7%	15%	22%	25%
MBNL1-NM_001314057.2eU3074-3'UTR+1703	0					0			3	7%	0%	210	200	690	220	490	A A T C G T G T T A A G A A A G T A A T G G T G A C T T C A C A T G T T							7%	7%	6%
MBNL2-NM_001306070.2eU110-5'UTR-695	0					0			2	4%	1%	270	210	680	400	300	T G A G A A C T A T T T A C A T G G A A G T T T C T T T C T C A T G A T							3%		5%
MBNL2-NM_001306070.2eU723-5'UTR-82	0					0			3	4%	2%	250	270	700	300	440	C A C C T T C A G A C T T A C A T G T G G G A G T T T T C A C A A C A G							3%	6%	3%
MBTPS1-NM_003791.4eU2181-NP_003782.1aa550SF	0					0			2	8%	2%	360	250	760	190	240	A G A A C G G A G A C A A C A T T G A A G T T G C C T T C T C C T A C T							10%	6%	
MCCC2-NM_001363147.1eU2012-3'UTR+348	0					0			3	4%	1%	440	250	670	300	210	A T T G A G A T G A T T A A T A T A A G T T G T A T T T T C A C T G A							3%	4%	4%
MCCC2-NM_001363147.1eU643-NP_001350076.1aa186PL	0					0			3	8%	3%	410	280	670	280	250	C A T A C T T A C C T C G A C A A G C A G A T G T G T T T C C A G A T C							8%	5%	11%
MCCC2-NM_022132.5eU643-NP_071415.1aa186PL	0					0			3	13%	4%	410	280	670	280	250	C A T A C T T A C C T C G A C A A G C A G A T G T G T T T C C A G A T C							8%	16%	15%
MCM10-NM_018518.5eU3435-3'UTR+686	0					0			2	8%	5%	360	170	840	180	430	A T A T A T A T A G A G A G A A A G A A G G T G T C T G C T C T T A C A								5%	12%
MCM5-NM_006739.4eU482-NP_006730.2aa135SS	0					0			3	8%	1%	300	290	340	480	310	G G T C A T G C T C A A G T C G G A C G C C A G C C C T T C C A G C A T							8%	10%	7%
MCM6-NM_005915.6eU1809-NP_005906.2aa577LL	4	24%	9%	28%	3%	0			3	3%	1%	310	150	780	140	350	T T C C C T C G A T G A T A T C A G A A G A T A T C T T C T C T T T G C	30%	25%	30%	10%			3%	4%	3%
MCM8-NM_001281520.2eU1214-NP_001268449.1aa261PP	0					0			2	4%	0%	440	220	660	360	330	T C C T C T T C C A G A T G G A A A A T A C A G T C T T C C C A C A A A								4%	4%
MCM8-NM_001281520.2eU1590-NP_001268449.1aa387LF	0					0			3	7%	4%	240	270	660	150	470	T G T A A G C A T G G A A T G T T G A T G G A G T T C T C A C T T A A A							5%	11%	4%
MCRS1-NM_001012300.1eU146-NP_001012300.1aa49SF	0					0			2	8%	4%	590	230	530	510	300	A G T C A C T G G C A G G G C A G A A G C G A G C C T C C T C C A G G								5%	12%
MCRS1-NM_006337.5eU312-NP_006328.2aa36SF	0					0			3	5%	1%	590	230	530	510	300	A G T C A C T G G C A G G G C A G A A G C G A G C C T C C T C C A G G							6%	5%	4%
MDM1-NM_001205028.3eU1906-NP_001191957.1aa597PS	0					1	13%		2	13%	3%	270	340	600	310	320	C C A A C A A A T C C C C C T G G A C A G T T G C C T T C T C C A C C A					13%			15%	11%
MDN1-NM_014611.3eU17490-3'UTR+512	0					0			3	6%	1%	590	220	700	310	290	T C G T T T C T G G A G A G T A T G A G G G T G T G T T T T T C T T A T T							7%	6%	5%
ME2-NM_001168335.2eU1400-NP_001161807.1aa399FF	0					0			2	3%	0%	480	130	640	350	150	A A T T G G A G T T G C A G G T G C T G G C C G T C T T T T C A C T C C							3%	2%	
MEAF6-NM_001270875.3eU895-3'UTR+299	0					0			2	6%	1%	470	300	470	400	510	G T T T C T C C C T T C T T A G A A T G A A T G T C T C C C C A A A A							7%	5%	
MED12-NM_005120.3eU5770-NP_005111.2aa1871R*	0					0			3	9%	4%	190	250	630	270	310	G T G C G C T T A C C A A T G C A G A A G C T G C C C A C C C G A C C A							4%	11%	12%
MED12-NM_005120.3eU65-5'UTR-96	0					0			2	28%	12%	170	170	720	160	280	C C C C T T G T T G T C T C T C G G C C G C C G T C C T C T C A C C A								37%	20%
MED15-NM_001003891.3eU1813-NP_001003891.1aa582LL	0					0			3	4%	1%	520	190	670	430	170	A T T C T G A C A G A C C C C T C G A A G C G G T G T C C C C T G A A G							3%	4%	4%
MED1-NM_004774.4eU1536-NP_004765.2aa445LL	0					0			3	10%	4%	480	250	580	290	500	T G G G C T T C T C C A A T T T G A A G T G T G T C C T C T C T C A G A							8%	15%	7%
MED23-NM_001270521.2eU261-NP_001257450.1aa23PL	0					0			3	7%	2%	490	380	640	480	220	T G A A A A C G G A A G T T A T A G A A G A G G C T T T T C C T G G C A							6%	9%	7%
MEGF8-NM_001271938.2eU890-NP_001258867.1aa94PL	0					0			3	16%	9%	360	160	660	350	240	A C T A C C T G T T C G T G T A T G A C G G T G A C T C C C G C G A G							6%	24%	18%
MEGF9-NM_001080497.3eU3390-3'UTR+1469	0					0			3	63%	23%	390	380	700	250	250	G T T A G T T C T T G C T T T T T G A T G G A G T T T T T T C C T A G A							43%	88%	60%
MEPCE-NM_001194990.2eU1765-3'UTR+40	0					0			2	2%	0%	310	120	650	300	390	T A A A C A G A A A G T G T G A A G A G G C T G C C C T C G C T G C T C							2%		2%
MERTK-NM_006343.3eU3458-3'UTR+329	0					0			3	74%	18%	340	320	750	250	230	A A C A T T T G T A C A G A G T T G A A G T T G T T T T T C A A G T T							59%	70%	94%
MESD-NM_015154.3eU273-NP_055969.1aa82PL	0					0			3	4%	2%	270	480	660	330	330	A A G A T G A T G A C A T T G A A G A A G G A G A T C T T C C A G A G C							6%	3%	3%
METAP2-NM_001317182.2eU114-NP_001304111.1aa29SF	0					0			2	2%	0%	340	280	660	310	320	A T C C A G A C G A C A G G G A A G A G G A G C T G C C T C T A C G G							2%		2%
METTL15-NM_001113528.2eU3226-3'UTR+1684	0					0			3	28%	8%	260	400	670	240	460	C T G A A T G T A C T G G G T T G A A T G G T G T C C T C T C C A A A A							21%	26%	36%
METTL16-NM_024086.4eU1240-NP_076991.3aa370FF	0					0			3	3%	1%	510	270	480	480	240	T C C C T G T G G A A A A G A G G A A G T C A G C C T T T T C C T A A C							4%	2%	3%
METTL18-NM_001320199.2eU250-NP_001307128.1aa4Q*	0					0			2	16%	5%	400	180	670	250	290	T T G T G T G C A T T T A A T A A G A G G A T G A C C T T T C A G T T T							13%	20%	
METTL6-NM_001301790.2eU235-5'UTR-34	0					0			2	4%	1%	390	150	630	250	160	G A T T C A T A T T A T T T G G T G A T G G A G A A T C T T C A G C T G							4%		5%
MFSD10-NM_001120.5eU1204-NP_001111.3aa314LF	0					0			3	9%	5%	510	340	660	430	310	A G T A G C C T A C A G C A G G G G A A G A T G T T T T T C C T C A T C							4%	7%	15%
MFSD14B-NM_032558.3eU685-NP_115947.2aa145SL	0					0			3	2%	1%	230	160	660	180	290	T T G C G A T G A T T T C T G T G T C T G G A G T C T T C T C G G T C A							3%	2%	2%
MFSD5-NM_001170790.2eU1442-NP_001164261.1aa432SF	0					0			2	10%	1%	370	110	660	180	250	T G T C C C T T G C T G T G C T C A T C G T C G T C T T C T C T C T C T							10%		9%
MGA-NM_001080541.3eU1432-NP_001074010.2aa415SL	0					0			2	17%	3%	400	90	560	390	310	A A G A G A C A G A T G A A G A G A C G G A T G T A T A C T C A A A C A							15%		19%
MGAT5-NM_001371457.1eU533-NP_001358386.1aa12Q*	2	18%	9%	18%	9%	0			3	36%	8%	260	200	800	160	340	G C T C T C T T C A C T C C G T G G A A G T T G T C C T C T C A G A A G		11%	24%				43%	27%	38%
MGC70870-NR_003682.1eU399-ncr	0					0			3	74%	19%	300	220	770	320	390	A A T G G T T T T G A A C C A A A G A A G C T G T A T T C C C T T A A A							81%	88%	52%
MGME1-NM_001310338.2eU202-NP_001297267.1aa7Q*	0					0			3	4%	1%	370	190	680	230	250	A A A C A A A T C T G A A T G A A G A T G A A G T T A T T T C A G A C C							3%	5%	4%
MGST3-NM_004528.4eU81-NP_004519.1aa5SF	4	4%	2%	5%	1%	0			3	33%	3%	340	210	550	370	460	G G T G A T C C A G A C G C A A G A T G G C T G T C C T C T C T A A G G	6%	4%	5%	2%			37%	32%	31%
MIA2-NM_001247988.1eU1863-NP_001234917.1aa537PS	0					0			3	25%	8%	360	160	670	400	290	T G G G A C C A G G A C C G T A G G A T G A T G T T C C T C C G C C A							29%	16%	30%
MICAL3-NM_001122731.2eU2626-NP_001116203.1aa851TI	0					0			2	9%	3%	290	90	680	320	230	C C A A A G G A C C C C T G C A G G A T G G C G C C A C C A C A G A T G							8%	11%	
MICAL3-NM_015241.3eU5589-NP_056056.2aa1745SF	0					0			2	7%	0%	350	210	650	390	370	A A C C C A A G T C C C T G T G G A A G T C C G T C T T C T C C G G G T							7%		7%
MICAL3-NM_015241.3eU8354-3'UTR+1990	0					0			3	17%	3%	390	150	730	170	280	T C A T C C T T G T C T G T C C A G A A G C T G C C A T C T C T C T C C							21%	15%	16%
MICA-NM_000247.3eU82-NP_000238.1aa15PL	4	12%	4%	14%	1%	0			2	4%	0%	170	230	660	280	290	C G G T C T T C C T G C T T C T G G C T G G C A T C T T C C C T T T T G	14%	14%	15%	6%			4%		4%
MICB-NM_001289160.2eU1996-3'UTR+836	0					0			2	5%	1%	350	310	690	460	410	T T T G T A T T T T T T G T A G A G A C G G G G T T C G C C A A G T T								4%	5%
MICOS10-NM_001032363.4eU162-NP_001027535.1aa32SL	0					0			3	11%	1%	410	330	690	130	500	G T A C T G G T T T T G G A T T A G G A A T T G T T T C T C A C T T A							9%	11%	12%
MICU1-NM_001195518.2eU186-NP_001182447.1aa39LL	0					0			2	4%	1%	320	370	650	320	220	A T C C G G C G A A G A C T A A T G A T G G T G G C T T T C C T G G G A							3%		4%
MICU2-NM_152726.3eU278-NP_689939.1aa86RC	0					0			3	19%	2%	520	180	640	330	150	G G A A T A A T A T A T A T T G G G A A A C C G T C T C T T C T G T A A G							17%	21%	18%
MIGA1-NM_001270384.2eU2230-3'UTR+321	0					0			2	15%	3%	490	200	470	540	260	A T T G G T T T G T C T T C T T G A A G C T G T C A T T C T C A A A A G							13%		17%
MIR4458HG-NR_039989.1eU199-ncr	0					0			3	32%	8%	520	140	680	330	190	A C T A T T T T G A G C A A A A A G A A G C A G T G T C T T C G G A A C							33%	23%	39%
MIS18A-NM_018944.3eU1241-3'UTR+504	0					0			3	13%	2%	400	190	480	450	400	G A T A A G A A A A A T C T T A G A G G T T G T C T A C C C A C A G T							15%	12%	13%
MKNK1-NM_001135553.4eU231-5'UTR-25	4	69%	22%	80%	6%	3	59%	8%	3	69%	2%	280	210	830	140	470	G G G A T T T C A A G T T T A C A G A T G G T A T C T T C T C A A A A G	87%	76%	77%	36%	50%	65% 61%	71%	67%	70%
MKNK1-NM_001377343.1eU189-5'UTR-56	4	63%	20%	72%	8%	3	63%	20%	3	67%	8%	280	210	830	140	470	G G G A T T T C A A G T T T A C A G A T G G T A T C T T C T C A A A A G	64%	78%	75%	35%	78%	40% 70%	67%	75%	60%
MKRN1-NM_013446.4eU1795-3'UTR+185	0					0			3	6%	2%	210	280	530	390	420	C A C C T T T C C C T G A G G A G T G T G T T G T T T C C C T G T T G							7%	7%	4%
MMP24OS-NM_001355003.2eU309-NP_001341932.1aa64LL	0					0			2	26%	12%	400	190	490	500	360	G T G G G G G C C G C T G G A C G A C G T G C G C T T C C T C A T C G C							34%		17%
MMP24OS-NM_001355004.2eU272-NP_001341933.1aa64LL	0					0			3	22%	5%	400	190	490	500	360	G T G G G G G C C G C T G G A C G A C G T G C G C T T C C T C A T C G C							22%	17%	27%
MOB1A-NM_001317110.2eU3652-3'UTR+2799	4	41%	13%	47%	4%	3	1%	0%	3	9%	1%	470	80	760	250	250	T T C C C C C T T G C T A A T C A G A A G C C A T C T C C T C T C A G T	52%	44%	45%	21%	2%	1% 2%	7%	9%	10%
MORC4-NM_001085354.3eU1120-NP_001078823.1aa293Q*	0					0			3	51%	15%	260	240	790	280	360	A T T T T T C T G C G T C A A A A G A A G G T G A C T A C C C A G A T G							33%	59%	60%
MORF4L1-NM_001265603.2eU960-NP_001252532.1aa228PL	0					0			2	2%	1%	490	360	470	530	130	T C A G T G C C A G C G A T T A T G A A G T G G C T C C T C C T G A G T							3%	2%	
MRE11-NM_001330347.2eU2053-NP_001317276.1aa632R*	0					1	6%		2	7%	4%	260	310	560	490	220	G C C T T T A A A T C T A C A A G A C A G C A G C C T T C C C G A A A T					6%		5%	10%	
MRE11-NM_005591.4eU2056-NP_005582.1aa633R*	0					2	8%	0%	2	7%	2%	260	310	560	490	220	G C C T T T A A A T C T A C A A G A C A G C A G C C T T C C C G A A A T						8% 9%		6%	9%
MRGBP-NM_018270.6eU485-NP_060740.1aa145SL	0					0			3	7%	1%	380	190	710	250	230	A C C C C C A C A A T G G G G C T G A C G A T G T T T T T C A T C T T							6%	7%	8%
MRPL13-NM_014078.6eU556-NP_054797.2aa167PL	0					0			3	5%	3%	250	310	690	370	260	A G T A C A C A C A A G A A G A A A T A G A C G C C T T C C C A A G A T							3%	8%	6%
MRPL18-NM_001318817.2eU258-NP_001305746.1aa46PL	0					0			3	37%	5%	250	150	700	330	270	T G G A C C C T G T G G A A A A T G A A G C T G T C G C C C C A G A A T							42%	38%	32%
MRPL18-NM_014161.5eU258-NP_054880.2aa46PL	0					0			3	40%	5%	250	150	700	330	270	T G G A C C C T G T G G A A A A T G A A G C T G T C G C C C C A G A A T							41%	45%	34%
MRPL18-NR_134862.1eU279-ncr	0					0			3	40%	3%	250	150	700	330	270	T G G A C C C T G T G G A A A A T G A A G C T G T C G C C C C A G A A T							38%	40%	43%
MRPL18-NR_134863.1eU279-ncr	0					0			3	46%	11%	250	150	700	330	270	T G G A C C C T G T G G A A A A T G A A G C T G T C G C C C C A G A A T							44%	36%	57%
MRPL18-NR_134866.1eU279-ncr	0					0			2	35%	11%	250	150	700	330	270	T G G A C C C T G T G G A A A A T G A A G C T G T C G C C C C A G A A T							27%	43%	
MRPL19-NM_014763.4eU5644-3'UTR+4740	0					0			3	41%	5%	260	70	660	350	130	T A T A T G T T G G T C T G T T T G A T G C T G T C T C A C C A G T T T							46%	36%	41%
MRPL44-NM_022915.5eU447-NP_075066.1aa146PL	0					0			3	13%	5%	380	150	700	240	100	G C C T T A C A C A G T T T C T T G A A G A C G A G T A C C C A G A C A							8%	13%	18%
MRPL46-NM_022163.4eU231-NP_071446.2aa74LL	0					0			3	12%	3%	370	150	730	250	400	A C C C C A T T G C A G G A A G A G A T G G C G T C T C T A C T G C A G							14%	8%	14%
MRPL49-NM_004927.4eU989-3'UTR+462	0					0			2	2%	0%	350	260	690	460	410	T T T G T A T T T T T A G T A G A G A T G G G G T T T C A C C A T G T T							2%	2%	
MRPL51-NM_016497.4eU679-3'UTR+166	0					0			3	34%	11%	560	60	590	340	190	A C T T T T G T T T T C C T C T A G A T G C T G C C T C T A C T C A T G							28%	28%	46%
MRPL52-NM_001318870.2eU491-3'UTR+132	0					0			2	15%	1%	410	150	510	440	270	A T G C T T C A T C C A G C C A G A A G A T A G C C T T C A C G T T C C							15%		14%
MRPL54-NM_172251.3eU297-NP_758455.1aa93PL	0					0			3	4%	1%	380	70	570	360	160	A T G T A C C C C T G A A A C C G G A T G C T G A G T A C C C T G A A T							5%	4%	3%
MRPS10-NM_018141.4eU1792-3'UTR+1174	0					0			3	12%	3%	360	300	360	650	240	A C T C T G T T T G T T A G G A G A T G T C T G C T T T T C C A T G A A							16%	11%	9%
MRPS16-NM_016065.4eU1404-3'UTR+828	0					0			3	8%	4%	350	260	690	460	410	T T T G T A T T T T T A G T A G A G A T G G G G T T T C A C C A T G T T							7%	5%	12%
MRPS16-NM_016065.4eU1537-3'UTR+961	0					0			3	9%	0%	350	260	640	460	410	T T T G T A T T T T T A G T A G A G A T G G G G T T T C A C C G T G T T							9%	9%	9%
MRPS23-NM_016070.4eU730-3'UTR+154	0					0			2	3%	1%	440	110	470	280	320	T T G A T C T C T A A G G T A T T A T G T T T G C C T T C T C T T A G T								2%	3%

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NEXN-NM_001172309.2eU1069-NP_001165780.1aa294PL	0					0			3	37%	6%	350	70	710	310	240	G G A G A A A T A T G G T A G T A G A T G A T G A C T C C C C A G A G A																			35%	32%	43%
NEXN-NM_001172309.2eU259-NP_001165780.1aa24SF	0					0			3	15%	2%	520	190	640	370	130	T T G C T T C T G A T G A T G A G G A A G A T G T A T C T T C T A A A G																			13%	16%	15%
NEXN-NM_144573.4eU451-NP_653174.3aa88SF	0					0			3	15%	5%	520	190	640	370	130	T T G C T T C T G A T G A T G A G G A A G A T G T A T C T T C T A A A G																			11%	21%	15%
NFKB2-NM_001077494.3eU910-NP_001070962.1aa214SF	0					0			2	4%	2%	440	210	540	330	330	C C T T C T C C C T G C C C C T G A A G C C A G T C A T C T C C C A G C																			5%	3%	
NFX1-NM_001318758.2eU319-NP_001305687.1aa88Q*	0					0			3	15%	2%	280	280	760	240	190	A G C A A A C C T A A G A G T C A G C A G A C G T C T T T C C A G T C C																			13%	16%	15%
NFYA-NM_002505.5eU2726-3'UTR+1510	0					0			2	12%	1%	390	70	560	400	240	A T G A T A T T T C A G A A G A G T T G G C T G C C T T C T C T G G A A																				12%	13%	
NFYC-NM_001142587.2eU1670-3'UTR+493	0					0			3	3%	1%	440	270	610	300	240	G A A T T A G G T G A A T G T G T A G C T G C T T T T C A C T C G																			2%	4%	4%
NGDN-NM_001042635.2eU147-NP_001036100.1aa45PL	0					0			2	4%	2%	320	270	550	330	220	T G A C A C A A A A A G T T C A A G C T G G T G C C T A T C C T A C A G																			5%		2%
NHP2-NM_001034833.2eU525-3'UTR+184	4	41%	14%	48%	1%	3	7%	1%	3	19%	2%	170	230	790	240	330	T C C T G C C C A C C C A C A C T G A C G G C A T C T T C C C A G T T C	49%	49%	47%	20%	8%	6%	8%	19%	18%	21%
NHP2-NM_017838.4eU631-3'UTR+101	4	46%	13%	52%	2%	3	7%	3%	3	26%	5%	170	230	790	240	330	T C C T G C C C A C C C A C A C T G A C G G C A T C T T C C C A G T T C	55%	52%	51%	27%	4%	9%	8%	23%	23%	31%
NIBAN1-NM_052966.4eU1530-NP_443198.1aa460PS	0					0			2	5%	1%	210	430	630	320	420	G C A G T G T T C A C T T T T G A G C A G T T G C T T T C C C C A C A T																				5%	4%
NIBAN2-NM_001035534.3eU143-NP_001030611.1aa17Q*	0					0			3	13%	9%	270	330	580	360	280	A A A A C C G G G A A G A T C C T G A C G G A G T T C C T C C A G T T C																			6%	11%	23%
NIBAN2-NM_022833.4eU287-NP_073744.2aa30Q*	0					0			3	19%	1%	270	330	580	360	280	A A A A C C G G G A A G A T C C T G A C G G A G T T C C T C C A G T T C																			20%	18%	19%
NIP7-NM_001199434.2eU1567-3'UTR+1107	0					0			3	16%	7%	270	210	780	250	410	T A T T A C C T T C T T T T T T A C A A G C T G T T T T C T C A G T A T																			9%	15%	23%
NISCH-XM_006712955.3eU1703-5'UTR-209	0					0			3	51%	13%	270	260	820	250	330	C A A C T T G T A G C C C C T C T G A A G C T G T T T T C T C A A C T G																			40%	65%	48%
NKAPD1-NM_001082970.2eU485-5'UTR-143	0					0			2	18%	2%	640	170	570	520	260	G C A G A G T A A C C A G T G G G A A G G C T G C G T T T T C A C G A A																			16%	19%	
NKAP-NM_024528.4eU708-NP_078804.2aa188RC	0					0			3	16%	6%	250	150	690	280	190	T C A G A A G A A G A A A A A A A G A A G A A G T C T A G C C G T T C A																			12%	23%	14%
NKTR-NM_001349124.2eU3464-NP_001336053.1aa1116PP	0					0			2	6%	0%	490	270	570	450	290	A A A C A T T C A G C A C G T T G A A G A A A G T G T T C C C A A T G G																				6%	6%	
NLGN2-NM_020795.4eU3214-3'UTR+295	0					0			3	21%	7%	500	340	510	430	590	G G T A T T T T C C C G C G T G G A G G T G T G C T T T C T C A C A A C																			18%	15%	29%
NLGN2-NM_020795.4eU961-NP_065846.1aa184HY	0					0			2	7%	2%	330	190	610	460	270	C C T G G G A A G A A G C C T G T G A T G C T G T T T C T C T C A T G G C																			5%		8%
NMD3-NM_015938.5eU2431-3'UTR+800	4	59%	17%	67%	6%	3	5%	2%	3	21%	2%	370	300	770	210	510	T T T T G T T T A T A A A T T G A G A A G A A T T T C T C T C T A T	73%	62%	67%	35%	7%	5%	3%	23%	22%	20%
NME6-NM_001308426.2eU226-NP_001295355.1aa68FF	0					0			3	14%	7%	460	370	660	500	370	G T T T T A C C G A G A G C A T G A A G G G C G T T T T T C T A T C A																			10%	10%	22%
NMNAT1-NM_001297778.1eU1488-3'UTR+489	0					0			2	38%	1%	420	200	690	250	360	T G T T T A T T T G T T T T T G A G A T G G A G T C T C T A A C T A A A A																			38%	37%	
NMNAT1-NM_001297778.1eU3154-3'UTR+2155	0					0			3	11%	2%	450	380	640	480	300	A G G C C T T T C A G A T A A G A G A A G T G G C T T T T C C T T G G T																			13%	10%	10%
NMT1-NM_021079.5eU950-NP_066565.1aa313HY	0					0			3	4%	1%	250	370	550	290	630	C C A C G G A A G C T G A T T G A A G T G A A G T T C T C C C A C C T G																			4%	3%	4%
NOCT-NM_012118.4eU1740-3'UTR+243	0					0			3	5%	2%	350	260	640	460	410	T T T G T A T T T T T A G T A G A G A C G G G G T T T C A C C G T G T T																			4%	8%	3%
NOL4L-NM_001256798.2eU2995-3'UTR+509	0					0			3	43%	8%	430	110	600	600	310	T G T G T C T G T C T G A T C A G A A G G A T G T A T C C C C A T A C C																			33%	44%	50%
NOM1-NM_001353366.2eU1588-NP_001340295.1aa521SL	0					0			3	15%	4%	450	130	690	300	280	G T T T T T C A T T G A G G A A A G A T G A T G C T T T A T C A C T T A																			13%	12%	20%
NOM1-NM_001353366.2eU5292-3'UTR+2680	0					0			3	5%	2%	380	270	640	290	200	G T T T T G A G G T A C A G A A T T G A A G C T G A T T T T T C T G C A A																			5%	3%	7%
NOM1-XR_927512.3eU1575-ncr	0					0			2	27%	3%	450	130	690	300	280	G T T T T T C A T T G A G G A A A G A T G A T G C T T T A T C A C T T A																				29%	25%
NONO-NM_001145408.2eU2435-3'UTR+752	4	63%	19%	73%	2%	3	6%	1%	3	20%	0%	360	210	770	250	390	C C C C T T C A T G T C C T A A A G A A G A C A T T T T C T C T T A G A	74%	73%	70%	35%	7%	7%	6%	21%	21%	20%
NONO-NM_001145408.2eU773-NP_001138880.1aa169SF	0					0			3	7%	1%	460	210	690	310	40	T G T C C A A C G A A C T G C T G G A A G A A G C C T T T T C T G T G T																			6%	6%	8%
NOP2-NM_001033714.3eU2661-3'UTR+77	0					0			3	17%	3%	470	120	720	280	320	G G A A C T C T T G C C T C T G T G A G G A T G C C T T C T C T A C T G																			14%	17%	20%
NOP2-NM_001033714.3eU293-NP_001028886.1aa46RC	0					0			2	5%	1%	350	0	690	310	250	A G T G A C G A A A A T T C C A A G A G G C T G T C T A G T C G T G C T																				5%	4%
NOP56-NM_006392.4eU1644-NP_006383.2aa539PS	0					0			3	4%	1%	400	180	720	260	220	A C C A G T A T T C C C A A G A G G A A G A A G T C T A C A C C C A A G																			4%	6%	4%
NORAD-NR_027451.1eU5202-ncr	0					0			3	7%	3%	500	110	540	270	250	T C A G T C C C A T A A A A T T G G A T G T T G T G C C T A C A C A C A																			6%	10%	4%
NPAT-NM_001321307.1eU5510-3'UTR+1103	0					0			2	19%	2%	310	360	640	350	410	G G A G A G T G A G A G A T G A G A G A G G T G C C T T C T C T G T A T																				17%	20%
NPDC1-NM_015392.4eU1045-NP_056207.3aa286TM	0					0			3	37%	14%	210	160	720	260	270	C G G A T G A G G A G A A T G A G G A C G G A G A C T T C A C G G T G T																			44%	47%	21%
NPEPPS-NM_001330257.2eU221-NP_001317186.1aa56PL	0					0			3	8%	4%	260	220	600	270	230	C C T T C G A G C G G C T G C C T G C C G A T G T C T C C C C C A T C A																			4%	11%	9%
NPEPPS-NM_006310.4eU372-NP_006301.3aa60PL	0					0			3	7%	4%	260	220	600	270	230	C C T T C G A G C G G C T G C C T G C C G A T G T C T C C C C C A T C A																			7%	3%	12%
NQO1-NM_000903.3eU1771-3'UTR+825	0					0			3	15%	5%	260	220	730	380	410	T T T G T A T T T T T A G T A G A G A C G G C G T T T C A C C A T G T T																			16%	20%	10%
NR2C1-NM_003297.4eU2328-3'UTR+270	0					0			3	10%	4%	300	80	690	190	230	T G G T G A A G A T G A T A C C T G A A G C T G T C A C C T C T T G A T																			9%	7%	14%
NR3C1-NM_000176.3eU5191-3'UTR+2368	0					0			2	12%	4%	290	260	640	280	290	G G A A T G T A A T A T T T T A A G A T G G T G T G T A A C C C G G C T																			9%		15%
NRGN-NM_001126181.2eU436-3'UTR+56	0					0			3	11%	3%	420	70	610	480	140	G T T C C C G A G G A G A G A T G G A T G C C G C G T C C C C T T C G C																			10%	9%	15%
NRGN-NM_006176.3eU433-3'UTR+53	0					0			3	9%	3%	420	70	610	480	140	G T T C C C G A G G A G A G A T G G A T G C C G C G T C C C C T T C G C																			9%	6%	11%
NRXN3-NM_001105250.3eU2370-3'UTR+78	0					0			2	45%	7%	440	160	690	160	280	A C G C C T A T G A A T C T T G G A C G G T G A G A T C T C A C A G A																				40%	50%
NSD2-NM_001042424.3eU1367-NP_001035889.1aa396PP	0					0			3	3%	0%	410	310	550	540	360	C C C C A A G T C T G T G A G A G A A G A G T G C A T T C C C A T G A A																			3%	3%	3%
NSFL1C-NM_001206736.2eU1307-3'UTR+163	2	2%	0%	2%	0%	0			3	46%	1%	310	270	480	380	490	T C T T A G A T C T T G G T T G G A C G T T T G T T T T C T C C T T A G	2%		2%					47%	45%	47%
NT5C2-NM_001134373.3eU1571-NP_001127845.1aa504LF	2	3%	1%	3%	1%	0			3	32%	6%	360	90	800	210	410	C A C G T A G A T A T C A A T G A G A T G G A G T C T C C C T T G C C		2%	4%					25%	35%	37%
NT5C3A-NM_001002009.3eU1100-NP_001002009.1aa291SF	0					0			2	9%	4%	290	130	670	130	180	T A C A A G A T G A A T C A T T A G A A G T A G C C A A C T C T A T T T																			12%	7%	
NT5C3B-NM_052935.5eU615-NP_443167.4aa192LL	0					0			2	3%	0%	520	400	560	500	390	C T A C A T G G A T T T T A A T G A A G A T G G T T T T C T C C A G G G																			3%	4%	
NT5DC3-NM_001031701.3eU3180-3'UTR+1455	0					0			3	20%	7%	420	320	690	500	410	T T T G T A T T T C T A G T A G A G A T G G G G T T T C T C C C A T G T T																			25%	13%	24%
NTPCR-NM_032324.3eU506-NP_115700.1aa136PS	0					0			3	10%	2%	210	220	720	280	310	A T T C A A G C T G T T C G T C A G A C G C T G T C T A C C C C A G G G																			12%	8%	11%
NUBP1-NM_001278506.2eU1093-3'UTR+141	4	23%	6%	26%	1%	0			2	4%	0%	320	210	720	300	200	A G A T G C T G G T G T G G T C C G A A G C C A C T T T C T C A G A G A	27%	27%	25%	14%					4%	4%
NUCB1-NM_006184.6eU1976-3'UTR+518	0					0			3	3%	2%	340	330	640	150	500	A C C A G T G A T G C C T C A A A G A C A G T G T C C C C T C C A C A G																			2%	2%	6%
NUCKS1-NM_022731.5eU5895-3'UTR+4954	1	3%				1	2%		2	2%	0%	370	200	420	230	230	A A A A G A A G C C T T T A T T G T T T G A G C A T G T T G G C A T T G T				3%			2%	1%		2%
NUDT19-NM_001105570.2eU2671-3'UTR+1403	0					0			3	10%	2%	350	260	690	460	410	T T T G T A T T T T T A G T A G A G A C G G G G T T T C A C C A T G T T																			11%	8%	11%
NUDT21-NM_007006.3eU3283-3'UTR+2469	0					0			3	5%	1%	520	230	490	460	310	C C C T T T G G A G A A G A G T G A A G T T G T T T T T T C G C C A T																			3%	6%	5%
NUFIP1-NM_012345.3eU330-NP_036477.2aa99LF	0					0			2	5%	1%	260	150	470	270	460	G C G C A A C C C C C C T T C G A C G C C C A G T C T C C C C T T G A T																				5%	6%
NUFIP2-NM_020772.3eU3300-3'UTR+1123	2	5%	2%	5%	2%	0			3	66%	3%	420	300	830	180	330	A A T A A A C C C T G A C T G T A G A A G G T G T G T T T T C T A G C A		7%	4%					69%	66%	63%
NUMA1-NM_001286561.2eU854-NP_001273490.1aa190SF	0					0			3	3%	1%	480	40	580	550	240	G C T T C C T A G A G C T A C A G A A G G T T G C C T C C T C T T C C A																			4%	2%	4%
NUP107-NM_001330192.2eU838-NP_001317121.1aa212AV	0					0			2	3%	1%	290	280	730	220	350	A G T C T G C A T T A G A A G A G G A A A G T G T A T T C G C A G T T A																				2%	3%
NUP155-NM_001278312.2eU458-NP_001265241.1aa110PL	0					0			3	4%	1%	470	270	570	450	470	T G C A G T G T A A T T G C A T G A T G G G T G T G T C C C T C C T A																			3%	4%	4%
NUP210-XM_005264994.3eU2974-XP_005265051.1aa961Q*	0					0			3	47%	13%	390	130	820	340	490	T C C A G C T G T C T T G C A A A G A G G A T G T T T C T C A G C G C																			58%	50%	33%
NUP43-NM_198887.3eU659-NP_942590.1aa209Q*	0					0			3	6%	1%	360	280	680	310	380	G A T T T C A G A C A A C A A G G A A A T G A G C C T T C T C A G A T A																			7%	6%	6%
NUP58-NM_001008564.2eU235-NP_001008564.1aa29SF	0					0			2	7%	1%	230	400	770	170	560	C C G G C G G G A C C A G C A C A G G C G G C G T T T T C T C T T C G																				6%	8%
NUP62-NM_153719.4eU202-5'UTR-211	0					0			2	9%	5%	520	170	500	390	270	C A G G C G T G C C G A G G T G G A T G T C C G T C T T T T C T C T G T																			5%		12%
NUP98-NM_001365125.2eU2263-NP_001352054.1aa694HY	0					0			2	3%	1%	420	370	630	180	400	C T G G A A G G A A G C A G T G A A G A A A C G T C T T T T C A T G A T																				4%	2%
NUP98-NM_001365125.2eU3438-NP_001352054.1aa1085PP	0					0			2	7%	2%	200	230	630	380	360	A A G T G T C T C T G T G C A A G A A T G T C G T A C T C C C A G A G C																			5%		8%
NUP98-NM_001365126.2eU3396-NP_001352055.1aa1071PP	0					0			3	8%	3%	200	230	630	380	360	A A G T G T C T C T G T G C A A G A A T G T C G T A C T C C C A G A G C																			10%	10%	4%
NUS1-NM_138459.5eU3170-3'UTR+2086	0					0			3	6%	1%	270	200	690	220	190	C T A G G A T T C T G A T T T C A G A T G T A G T C A T T C C A G A A C																			6%	6%	5%
NUS1-NM_138459.5eU779-NP_612468.1aa193PS	0					0			3	23%	5%	250	400	680	200	460	A A T T G C C A T T T G G C A G T G A A G G T G C T G T C T C C G G A A																			21%	19%	28%
NUSAP1-NM_001243142.2eU520-NP_001230071.1aa148SL	0					0			3	6%	1%	320	100	640	520	330	A G C A C C A A G A A G C T G A G A A T G C T G T T T C C T C A G G T A																			7%	6%	5%
NUSAP1-NM_001243143.2eU478-NP_001230072.1aa134SL	0					0			2	9%	3%	320	100	640	520	330	A G C A C C A A G A A G C T G A G A A T G C T G T T T C C T C A G G T A																				11%	7%
NUSAP1-NM_001243144.2eU454-NP_001230073.1aa126SL	0					0			3	7%	2%	320	100	640	520	330	A G C A C C A A G A A G C T G A G A A T G C T G T T T C C T C A G G T A																			5%	7%	10%
NUTF2-NM_001322038.2eU347-NP_001308967.1aa59LF	0					0			3	5%	0%	250	150	690	240	290	A A A G C T G C C A T T G T G G A G A A G T T G T C T A G C C T T C C G																			5%	5%	5%
NXF1-NM_001081491.2eU3775-3'UTR+2620	0					0			3	5%	0%	240	200	690	290	320	A T C G T A G T C A T G C C T C A G A A G C A G T C C C C C T G T A A																			5%	5%	6%
NXN-NM_001205319.1eU2060-3'UTR+1015	0					0			2	9%	3%	350	260	690	460	410	T T T G T A T T T T T A G T A G A G A T G G G G T T T C A C C A T G T T																			7%		11%
OAS1-NM_001032409.3eU763-NP_001027581.1aa229Q*	0					0			3	9%	2%	300	80	680	320	240	T G T A A G A A G A A G C T T G G G A A G C T G C C A C C T C A G T A T																			6%	10%	11%
OAS3-NM_006187.4eU3497-3'UTR+176	0					0			2	2%	0%	190	330	560	300	450	C A T G T G T G T G T T T T A G T G A A T C T G C T C T C C C A G C T C																			2%	2%	
OAS3-NM_006187.4eU5793-3'UTR+2472	0					0			3	2%	1%	280	290	370	500	460	G A C T T G A C T G C A T A A A G A T G T C A G T T C T C C C T G A G T																			2%	2%	1%
OAT-NM_000274.4eU1266-NP_000265.1aa396R*	0					0			3	12%	3%	410	280	640	330	260	A A A G A T T G G G A T G C T T G G A A G G T G T G T C A C G A C T T																			9%	15%	13%
OBI1-NM_024546.4eU1989-NP_078822.3aa652Q*	0					3	18%	3%	3	19%	4%	290	330	730	270	430	C C A A G C T G C T T G T T T C A G A C A G A G T T T C C C A G G G C											14%	20%	20%	15%	23%	20%

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RABGAP1-NM_012197.4eU1927-NP_036329.3aa602Q*	0					0			3	3%	1%	260	280	730	430	290	T	A	C	C	G	C	A	T	T	C	T	T	A	T	C	A	C	A	A	A	G	G	A	G	T	C	T	C	C	C	C	A	G	G	A	C								2%	2%	4%
RABIF-NM_002871.5eU1793-3'UTR+1370	3	19%	2%	19%	2%	0			2	16%	10%	360	260	480	540	320	C	C	T	A	C	T	C	C	C	C	T	G	G	A	A	A	G	A	T	G	G	C	T	T	C	C	T	T	C	T	C	C	A	A	T	T	19%	18%	21%				24%	9%	
RABL2B-NM_001003789.3eU1588-3'UTR+705	0					0			2	20%	6%	350	260	690	460	410	T	T	T	G	T	A	T	T	T	T	T	A	G	T	A	G	A	G	A	C	G	G	G	G	T	T	T	C	A	C	C	A	T	G	T	T							16%		24%
RAC1-NM_006908.5eU897-3'UTR+109	0					0			3	5%	2%	310	240	690	190	350	C	A	A	A	A	A	A	A	A	A	A	C	A	A	C	G	G	T	G	G	A	G	C	C	T	T	C	G	C	A	C	T	C	A								3%	5%	8%
RACGAP1-NM_001126103.3eU995-NP_001119575.1aa235TI	0					0			3	3%	1%	380	130	670	250	320	A	T	G	A	T	G	G	C	G	G	G	C	C	C	A	T	C	G	A	A	G	C	T	G	T	G	T	C	C	A	C	T	A	T	T	G							2%	5%	3%
RAD1-NM_002853.4eU168-NP_002844.1aa4LL	0					0			3	17%	7%	500	110	520	320	130	G	G	G	C	C	G	A	A	T	G	C	G	C	A	G	T	G	G	A	C	G	A	T	G	C	C	C	C	T	T	C	T	G	A	C	C							16%	12%	25%
RAD21-NM_006265.3eU3482-3'UTR+1388	0					0			3	18%	3%	210	470	690	350	390	A	T	G	A	T	G	T	G	C	C	T	G	T	A	A	A	C	C	A	A	G	G	A	G	T	T	T	T	C	C	C	C	G	T	T	T							16%	21%	18%
RAD23B-NM_001244713.1eU198-NP_001231642.1aa19PL	0					0			3	4%	0%	360	320	620	490	220	T	T	G	A	A	T	C	T	G	A	A	A	A	G	G	G	G	A	A	A	G	A	T	G	C	C	T	T	T	C	C	A	G	T	A	G							3%	4%	4%
RAD23B-NM_002874.5eU470-NP_002865.1aa40PL	0					0			3	2%	1%	360	320	620	490	220	T	T	G	A	A	T	C	T	G	A	A	A	G	G	G	G	A	A	A	G	A	T	G	C	C	T	T	T	C	C	A	G	T	A	G							2%	2%	3%
RAD51AP1-NM_001130862.2eU718-NP_001124334.1aa223SF	0					0			3	2%	1%	350	120	720	180	180	G	T	G	A	G	A	G	T	G	A	G	G	A	T	A	A	T	G	A	C	G	A	A	G	A	C	T	T	C	T	C	T	A	T	G	A							2%	2%	3%
RAD51C-NM_058216.3eU814-NP_478123.1aa258RC	0					0			3	4%	1%	400	220	480	210	460	T	T	T	C	G	T	C	A	T	G	A	C	C	T	G	A	C	T	G	T	C	T	C	T	T	C	G	T	A	C	T													4%	6%	4%
RAD9A-NM_004584.3eU300-NP_004575.1aa81LL	0					0			3	12%	1%	360	200	670	280	110	C	T	G	C	G	C	T	G	T	A	A	G	A	T	C	C	T	G	A	T	G	A	A	G	T	C	T	T	T	C	C	T	G	T	C	T							13%	13%	11%
RAI1-NM_030665.4eU4310-NP_109590.3aa1276PS	0					0			3	8%	1%	540	170	820	270	390	T	C	C	C	C	C	A	C	C	C	T	C	T	T	C	A	A	G	A	G	G	A	T	G	T	C	T	T	C	C	C	A	A	G							8%	7%	8%
RALBP1-NM_006788.4eU2314-3'UTR+112	0					0			3	12%	3%	310	280	780	220	470	C	T	C	G	C	T	G	T	A	C	A	T	T	C	T	G	T	A	A	A	G	G	T	G	T	C	T	T	C	C	T	T	C	T	C							13%	9%	14%
RALY-NM_007367.4eU1316-3'UTR+130	0					0			3	2%	0%	420	270	740	220	260	C	C	A	G	G	G	A	A	A	G	C	T	G	G	C	A	G	C	A	G	G	C	G	C	C	T	C	C	T	C	C	C	C	C	A							2%	1%	1%
RANBP2-NM_006267.5eU3259-NP_006258.3aa1045TM	0					0			3	20%	1%	210	160	720	180	370	C	A	A	A	T	T	T	C	A	A	A	T	C	A	A	A	T	G	A	T	G	G	T	G	A	C	T	T	C	A	C	G	T	T	T	T							20%	19%	21%
RAP1A-NM_001010935.3eU935-3'UTR+113	0					0			3	4%	1%	540	310	540	550	60	T	C	A	A	A	A	A	T	A	A	A	A	A	T	C	T	G	A	A	G	A	G	G	C	T	T	C	T	C	C	T	G	T	T	T							4%	3%	4%
RAPGEF1-NM_001304275.2eU1186-NP_001291204.1aa314PS	0					0			2	5%	0%	200	330	650	190	340	C	C	A	C	C	C	A	A	G	A	A	G	A	C	A	G	T	C	G	G	C	G	C	C	G	T	C	C	C	C	T	C	A	C	C							5%	5%	
RAPGEF1-NM_001304275.2eU833-NP_001291204.1aa196SL	0					0			2	5%	0%	340	170	770	160	250	C	T	G	A	C	C	A	A	G	T	G	A	T	G	C	T	G	G	A	A	G	G	C	G	T	G	A	A	C	T	C	A	G	A	A	G							5%		5%
RASAL2-NM_004841.5eU4307-3'UTR+742	0					0			3	15%	3%	350	200	660	390	370	T	C	C	T	C	T	G	T	C	T	A	C	A	G	C	A	G	A	T	G	G	G	A	G	T	C	T	C	T	C	T	T	T	A							16%	11%	17%
RASSF1-NM_001206957.2eU1237-3'UTR+290	1	1%		1%		3	14%	2%	3	32%	5%	320	170	650	370	210	C	A	G	C	A	G	G	A	G	T	G	G	T	G	C	A	G	A	C	A	G	A	A	G	T	C	C	C	T	C	A	A	T	T	T		1%			12%	16%	13%	30%	28%	38%
RASSF8-NM_001164746.2eU5141-3'UTR+3340	0					0			3	12%	4%	290	70	740	220	360	G	C	C	T	T	A	A	T	T	A	T	A	T	A	A	C	G	A	T	G	C	T	G	T	G	T	T	C	A	C	A	T	C	C	C							8%	15%	14%
RBBP8-NM_002894.3eU1750-NP_002885.1aa472PL	0					0			2	2%	0%	410	320	620	360	380	A	A	G	C	T	T	C	T	T	T	T	G	A	T	A	A	A	G	A	A	A	A	T	G	C	T	T	T	C	C	C	T	T	T	C								2%	2%
RBBP8-NM_002894.3eU817-NP_002885.1aa161PL	0					0			3	5%	0%	310	340	680	410	170	C	T	G	A	G	C	T	T	G	A	A	T	G	T	G	A	G	G	A	A	G	A	C	G	T	T	A	T	T	C	C	A	G	A	T	T							4%	5%	5%
RBM15B-NM_013286.5eU6487-3'UTR+3699	0					0			3	28%	6%	310	290	860	220	350	T	C	T	C	C	T	T	G	C	C	T	C	T	C	C	T	G	G	A	A	G	G	T	G	T	C	T	T	C	T	C	T	A	T	G	G							30%	22%	33%
RBM17-NM_001145547.2eU757-NP_001139019.1aa38TI	0					0			3	5%	1%	460	220	480	530	440	C	T	C	A	G	C	T	T	C	A	G	G	T	G	A	A	G	A	A	G	G	C	A	G	C	T	C	T	C	A	C	T	C	A	G	G							5%	6%	4%
RBM19-NM_001146698.2eU2350-NP_001140170.1aa751SL	0					0			3	10%	5%	590	220	630	430	190	C	A	A	C	A	G	A	A	G	A	G	A	A	G	C	T	G	A	A	G	G	A	A	G	T	G	T	T	T	C	A	A	A	A	G							6%	16%	8%
RBM22-NM_018047.3eU90-NP_060517.1aa5LL	0					0			3	28%	5%	250	210	770	120	370	C	C	T	C	C	G	G	A	C	G	C	T	C	T	C	A	A	G	A	T	G	G	C	G	A	C	C	T	C	T	C	T	G	G	G	T							26%	24%	34%
RBM22-XR_001742145.2eU117-ncr	0					0			3	31%	6%	250	210	770	120	370	C	C	T	C	C	G	G	A	C	G	C	T	C	T	C	A	A	G	A	T	G	G	C	G	A	C	C	T	C	T	C	T	G	G	G	T							24%	37%	30%
RBM26-XM_005266491.5eU6327-3'UTR+3022	0					0			2	21%	6%	360	140	710	360	270	C	T	T	T	T	G	T	G	T	A	A	T	T	G	A	A	T	G	A	A	G	C	A	G	T	T	C	C	T	C	T	G	C	A	T							16%		25%
RBM33-NM_053043.3eU2176-NP_444271.2aa654Q*	0					0			3	20%	7%	210	130	690	190	200	G	T	C	C	C	G	C	C	C	C	C	T	C	T	T	G	A	T	G	C	C	G	A	T	G	T	C	T	C	A	G	C	C	A							17%	14%	28%
RBM33-NM_053043.3eU4109-3'UTR+380	0					0			3	8%	3%	210	210	700	210	320	A	T	T	A	A	C	G	T	C	A	C	A	A	G	T	T	C	T	A	A	G	T	A	G	T	T	T	T	C	A	C	A	G	C	A	A							8%	5%	11%
RBM33-NM_053043.3eU7160-3'UTR+3431	0					0			2	15%	6%	210	150	800	200	350	G	A	G	G	C	C	T	G	G	G	G	A	T	T	G	G	G	G	A	A	G	C	T	G	T	C	A	T	C	T	C	A	G	T	G	T							10%	19%	
RBM39-NM_001242599.2eU2397-3'UTR+537	4	49%	16%	57%	4%	3	9%	1%	3	23%	4%	300	270	720	180	250	T	C	A	A	A	A	T	T	A	T	A	T	T	T	C	T	T	G	A	T	G	G	T	A	T	C	T	T	T	T	C	A	A	T	T	A	53%	61%	56%	26%	8%	10%	8%	28%	22%	21%
RBM7-NM_001286045.2eU2571-3'UTR+1761	0					0			2	18%	7%	500	260	690	460	410	T	T	T	G	T	A	T	T	T	T	T	A	G	T	A	G	A	G	A	T	G	G	G	G	T	T	C	A	C	C	A	C	A	T	T								23%	13%
RBM8A-NM_005105.5eU136-NP_005096.1aa26HH	0					0			3	2%	0%	420	290	470	360	430	C	A	T	G	G	A	T	G	A	G	G	G	A	T	G	G	G	G	A	C	G	A	G	A	G	C	A	T	T	C	A	C	A	A	A	C	T							2%	3%	2%
RBMS2-NM_002898.4eU5650-3'UTR+4222	0					0			2	10%	4%	400	330	750	390	450	T	T	T	T	T	A	T	T	T	T	T	A	G	T	A	G	A	G	A	T	G	G	G	G	T	T	T	A	C	C	A	C	G	T	T							7%		12%
RC3H1-NM_001300850.1eU7530-3'UTR+4038	0					0			2	17%	11%	470	260	690	230	180	T	A	G	C	C	A	A	T	A	A	C	T	T	C	T	G	T	G	A	A	G	T	T	G	C	C	T	T	T	C	T	A	A	T	G							25%		9%
RC3H2-NM_001100588.3eU5301-3'UTR+1408	0					0			3	11%	1%	360	140	710	210	370	T	T	T	T	A	A	T	T	A	A	C	T	T	C	T	G	T	G	A	A	G	T	T	G	T	T	A	C	T	C	T	G	A	A	A							13%	11%	10%
RC3H2-NM_001100588.3eU8497-3'UTR+4604	0					0			3	17%	3%	150	210	690	220	500	A	T	G	T	A	A	A	T	G	A	A	A	T	T	A	A	A	G	A	T	G	G	T	G	T	A	C	A	C	C	C	A	T	A	T							20%	16%	15%
RCAN1-NM_001285389.2eU344-NP_001272318.1aa99PL	0					0			3	5%	3%	360	150	590	380	160	T	G	G	G	A	T	G	G	A	A	A	C	A	A	G	T	G	G	A	A	G	A	T	G	C	G	A	C	C	C	C	A	G	T	C	A							3%	4%	9%
RCC1L-NM_001363447.2eU1429-NP_001350376.1aa244PL	0					0			2	2%	1%	360	350	600	270	280	A	A	G	G	T	C	C	A	A	A	C	C	T	A	G	T	G	G	A	A	A	G	T	G	C	C	G	T	C	C	C	T	G	A	A	A								2%	1%
RCC1-NM_001048194.4eU1286-NP_001041659.1aa398FF	0					0			3	9%	1%	560	170	540	390	310	G	T	A	T	G	C	T	G	T	G	A	C	C	A	A	G	G	A	T	G	G	T	C	G	T	G	T	T	T	T	C	G	C	C	T	G							10%	8%	9%
RCC2-NM_001136204.3eU1080-NP_001129676.1aa353SF	0					0			3	7%	3%	350	300	650	390	410	T	G	G	T	C	C	T	G	G	A	C	T	C	C	C	A	G	A	A	G	C	G	A	G	T	C	T	T	C	T	C	C	T	G	G	G							7%	10%	5%
RCC2-NM_001136204.3eU1479-NP_001129676.1aa486SL	4	31%	10%	36%	3%	3	5%	1%	3	21%	1%	280	220	780	290	350	A	G	G	A	G	G	T	A	A	A	G	A	C	T	C	T	G	G	A	T	G	G	C	A	T	T	T	T	C	T	C	A	G	A	G	C	39%	32%	36%	17%	5%	6%	3%	20%	21%	22%
RCL1-NM_001286699.2eU409-NP_001273628.1aa12SL	0					0			3	40%	6%	360	250	820	290	350	C	T	C	C	C	G	G	A	G	G	G	A	G	G	C	G	A	A	G	T	G	G	T	T	T	C	T	C	A	T	G	T	C							46%	41%	34%
RCL1-NM_005772.5eU657-NP_005763.3aa170SL	0					0			3	44%	8%	360	250	820	290	350	C	T	C	C	C	G	G	A	G	G	A	G	G	C	G	A	A	G	T	G	G	T	T	T	C	T	C	A	T	G	T	C							38%	41%	52%
RCN1-NM_002901.4eU1214-3'UTR+95	0					0			3	12%	2%	340	220	670	140	390	C	A	A	T	T	G	T	C	T	A	A	T	T	T	A	C	A	G	C	A	G	T	T	G	A	T	C	C	C	A	C	A	A	A							14%	10%	11%
RDH13-XM_011526408.3eU2086-3'UTR+1157	0					0			2	28%	1%	330	280	730	420	410	T	T	T	G	A	T	A	T	T	T	T	A	G	T	A	G	A	G	A	T	G	G	C	G	T	T	C	T	C	A	T	G	T	T							29%		27%
RDM1-NM_001034836.2eU305-NP_001030008.1aa87Q*	0					0			2	31%	3%	430	270	690	420	100	C	A	A	A	A	G	G	C	A	T	G	C	G	A	C	C	G	G	A	A	G	C	A	G	C	T	T	T	T	C	A	G	A	A	A							30%	33%	
RELB-NM_006509.4eU2236-3'UTR+380	0					0			2	6%	0%	250	320	580	240	290	G	G	G	G	G	G	G	T	A	G	G	T	T	G	G	T	T	G	T	T	C	A	G	A	G	T	C	T	T	C	C	A	A	T	A	A							6%		6%
REXO1-NM_020695.4eU562-NP_065746.3aa146PL	0					0			2	8%	2%	470	140	730	420	240	C	C	A	C	T	G	T	G	G	G	C	C	C	G	G	A	C	G	A	G	G	A	T	G	C	C	T	T	C	C	C	A	C	T	G	G							6%		9%
RFC2-NM_001278791.2eU1116-NP_001265720.1aa232SF	0					0			2	2%	0%	430	170	680	160	250	C	T	C	A	C	A	T	G	A	A	A	A	T	A	G	C	G	G	A	A	G	G	A	G	T	G	A	A	C	T	C	T	T	T								2%	2%
RFC3-NM_002915.4eU1998-3'UTR+897	0					0			3	21%	1%	250	120	740	290	290	A	T	C	C	C	A	A	T	C	A	A	G	G	T	A	T	A	G	A	T	G	C	C	G	T	C	A	C	C	C	C	A	A	A	A	A							20%	21%	22%
RFC3-NM_002915.4eU918-NP_002906.1aa296LL	0					0			2	3%	1%	630	400	590	230	390	T	C	C	T	C	C	T	G	A	G	A	T	A	A	T	G	A	A	G	G	G	C	C	T	T	C	T	C	T	C	A	G	A								4%	3%
RFC4-NM_002916.5eU631-NP_002907.1aa143PS	0					0			3	7%	4%	340	180	710	330	250	G	G	A	A	G	T	C	G	C	T	C	A	G	A	T	G	G	G	A	A	G	C	C	G	T	G	T	C	C	G	C	C	T	T	T	T							10%	3%	9%
RFTN1-NM_015150.2eU1348-NP_055965.1aa361TI	0					0			3	42%	6%	310	140	720	320	340	A	T	G	G	A	G	T	A	T	T	C	A	T	C	T	T	T	G	A	A	G	C	T	G	T	T	T	C	C	A	C	A	G	A	A	G							48%	43%	36%
RFXANK-NM_001278727.2eU623-NP_001265656.1aa59SS	0					0			2	11%	7%	540	240	370	490	310	T	G	T	G	A	A	C	C	G	G	A	T	G	C	C	A	G	T	G	T	T	T	C	C	T	C	T	C	C													6%	16%	
RFXANK-NM_001278728.2eU351-NP_001265657.1aa59SS	0					0			3	23%	6%	540	240	370	490	310	T	G	T	G	A	A	T	C	C	T	G	A	A	C	C	G	G	A	T	G	C	C	A	G	T	G	T	T	T	C	C	T	C	T	C	C							24%	29%	18%
RFXANK-NM_001370235.1eU602-NP_001357164.1aa59SS	0					0			2	20%	6%	540	240	370	490	310	T	G	T	G	A	A	T	C	C	T	G	A	A	C	C	G	G	A	T	G	C	C	A	G	T	G	T	T	T	C	C	T	C	T	C	C							16%		24%
RGPD6-NM_001123363.4eU6400-3'UTR+904	0					0			2	4%	1%	280	290	680	280	250	T	T	G	A	G	T	T	G	A	G	G	T	G	A	T	T	T	C	A	T	G	G	T	G	C	T	T	T	C	C	A	G	G	C	T							3%	4%	
RHBDD2-NM_001040456.3eU414-NP_001035546.1aa122SL	0					0			2	4%	1%	580	0	650	340	170	T	C	A	T	C	T	T	C	C	T	G	T	C	A	T	T	C	G	A	G	G	C	T	G	T	G	T	C	A	T	C	A	C	T	G	T							3%	5%	
RHNO1-NM_001252499.3eU1131-3'UTR+270	0					0			3	19%	5%	420	230	650	500	330	T	T	T	G	T	A	T	T	T	T	T	A	G	T	A	G	A	G	A	T	G	T	G	G	T	T	C	T	C	C	A	T	G	T	T							13%	20%	24%
RHNO1-NM_001252499.3eU178-NP_001239428.1aa12Q*	0					0			3	14%	4%	340	140	480	420	260	C	C	T	C	C	C	A	G	A	A	A	A	A	A	C	G	C	C	G	C	A	G	C	C	T	T	C	C	A	G	A	A	A							10%	14%	17%
RHOT1-NM_001033566.3eU334-NP_001028738.1aa48PL	0					0			3	10%	5%	250	70	620	210	310	A	A	G	A	A	A	T	C	A	C	C	A	T	T	C	C	A	G	C	T	G	A	T	G	C	A	C	C	C	A	G	A	G	A							5%	9%	15%
RHOT2-NM_001352275.2eU1045-NP_001339204.1aa326SL	0					0			2	7%	1%	350	210	730	130	370	A	G	C	A	C	G	A	C	C	A	G	G	A	C	G	G	C	G	G	C	G	C	C	T	C	T	C	G	C	C	C	G							6%		8%
RHOT2-NM_001352275.2eU228-NP_001339204.1aa54HY	0					0			3	15%	4%	340	290	720	230	470	G	C	G	G	A	C	G	T	C	A	C	C	C	C	G	G	A	A	G	G	T	G	C	C	C	A	C	C	C	A	C	A	T	C							15%	11%	20%
RHPN1-NM_052924.3eU661-NP_443156.2aa183LL	0					0			2	23%	10%	500	190	490	500	440	C	C	A	G	C	T	G	T	G	C	T	T	C	C	T	G	G	A	T	G	C	G	C	G	C	T	T	C	C	T	C	A	C	C	C	C							16%	30%	
RICTOR-NM_001285439.2eU4797-NP_001272368.1aa1592SF	0					0			3	7%	3%	440	280	680	300	380	C	T	A	T	C	C	A	T	A	A	T	C	C	T	T	A	G	A	A	G	T	G	G	T	T	C	C	T	C	T	A	A	G	T							4%	10%	8%
RIN2-NM_001242581.2eU2183-NP_001229510.1aa716PS	0					0			3	9%	4%	250	250	770	140	350	A	A	G	T	T	C	A	T	G	A	C	C	A	T	G	C	A	G	A	A	G	A	T	G	T	A	T	T	C	G	C	C	G	G	A	A							12%	11%	5%
RIN3-NM_001319987.2eU1075-NP_001306916.1aa317SS	0					0			3	14%	4%	400	250	640	370	120	T	C	C	C	A	C	T	G	C	C	C	C	T	C	C	A	G	A	C	G	C	C	G	C	G	T	T	T	C	C	G	A	G	A	G							10%	18%	14%
RIOK3-NM_001348193.2eU1646-NP_001335122.1aa498PL	0					0			2	2%	0%	300	210	570	290	150	C	T	T	C	A	T	T	T	T	T	G	A	A	A	G	A	T	G	A	T	G	G	A	G	A	C	C	A	C	C	A	C	T	A	C							1%		2%
RIOK3-NM_003831.5eU323-NP_003822.2aa57PL	0					0			3	5%	1%	330	260	620	390	250	T	G	C	A	G	T	T	A	G	A	A	G	A	A	G	C	T	G	C	C	G	T	T	T	T	C	C	T	G	A	A	G							5%	4%	6%
RIOX1-NM_024644.5eU1329-NP_078920.2aa415SF	0					0			3	11%	4%	350	140	690	200	320	A	C	C	A	A	G	C	T	G	A	A	T	G	C	C	A	G	G	A	T	G	G	A	G	T	C	C	A	C	T	C	T	C	T	G	C							9%	15%	9%
RMND1-NM_001271937.2eU524-NP_001258866.1aa136SF	0					0			3	6%	1%	440	320	500	510	340	A	T	G	A	T	G	C	C	A	T	T	C	T	A	G	A	G	A	A	G	T	T	T	G	C	T	T	T	C	C	A	A	T	G							7%	5%	7%
RND3-NM_001254738.1eU2430-3'UTR+1417	0					0			3	10%	2%	230	370	660	220	340	T	T	C	G	T	T	T	T	T	G	A	A	G	T	G	T	T	G	A	A	G	C	T	G	T	G	C	T	C	C	C	C	T	T	A	A							9%	12%	10%
RND3-NM_005168.5eU2309-3'UTR+1417	0					0			3	10%	1%	230	370	660	220	340	T	T	C	G	T	T	T	T	T	G	A	A	G	T	G	T	T	G	A	A	G	C	T	G	T	G	C	T	C	C	C	C	T	T	A	A							8%	9%	11%
RNF114-NM_018683.4eU2214-3'UTR+1511	0					0			3	4%	1%	300	190	690	230	300	G	T	T	C	A	C	T	G	T	A	A	T	T	C	T	G	G	A	A	G	A	G	T	T	C	A	C	T	C	A	G	A	C	C							4%	3%	5%
RNF114-NM_018683.4eU906-3'UTR+203	0					0			3	3%	1%	260	360	700	360	310	C	C	C	T	T	T	G	G	G	C	T	C	T	T	G	C	C	A	A	A	G	C	T	G	T	C	T	T	C	C	C	C	T	A	C	T							3%	2%	3%
RNF115-NM_014455.4eU475-NP_055270.1aa85Q*	0					0			2	5%	2%	380	240	670	250	310	T	G	G	G	G	C	A	T	T	T	G	G	A	T	C	A	C	A	C	G	A	T	G	T	T	T	T	T	C	A	A	G	A	T							3%	6%	
RNF121-NM_001300926.2eU1181-3'UTR+489	0					0			3	7%	1%	310	280	770	270	260	C	A	T	G	A	C	A	T	T	T	T	T	G	G	T	T	T	A	A	A	G	A	G	C	C	T	T	C	T	C	A	T	C	T	C							7%	6%	7%
RNF146-NM_001242844.2eU966-NP_001229773.1aa129SF	0					0			3	23%	7%	470	420	640	380	160	G	C	A	C	T	A	G	T	A	G	A	G	A	G	C	T	G	G	A	A	G	A	T	G	C	T	T	T	T	C	C	A	A	A	G							18%	31%	20%
RNF167-NM_001320356.2eU1524-3'UTR+55	0					0			3	3%	0%	310	180	620	400	250	G	T	G	A	C	C	T	A	T	T	T	G	C	A	C	A	G	A	C	C	G	T	C	G	T	C	T	T	C	C	T	C	C	A	G							3%	3%	4%

RNF167-NM_001320360.2eU541-5'UTR-23	1	1%		1%		0			3	7%	3%	410	120	590	340	350	G C T C C T T G C T A C C A G G A C G C G C G G C C T C C T C A G C C T			1%						8%	10%	4%
RNF20-NM_019592.7eU213-NP_062538.5aa42SL	0					0			3	15%	0%	350	360	740	210	380	T G G A A A C A A T T A A G C T A G G A G G T G T C T C T T C A A C G G									14%	15%	15%
RNF20-NM_019592.7eU2892-NP_062538.5aa935TI	0					0			3	6%	1%	310	290	550	350	390	G T A A C A T G C G T A A A A A G G A T G C T G T T C T T A C T A A G T									5%	7%	6%
RNF214-NM_001077239.2eU950-NP_001070707.1aa302Q*	0					0			3	9%	1%	330	360	790	290	330	A A G A T A G A G A A A G A G A A G A G G A G T T T T T G C A G A A G									10%	9%	8%
RNF216-NM_001377156.1eU1972-NP_001364085.1aa579Q*	0					0			3	7%	3%	290	350	670	370	530	C C A A C C A G T G A G C T G G A G A A G G T G C T C C C C C A G A C C									4%	7%	10%
RNF26-NM_032015.5eU690-NP_114404.1aa32LF	0					0			2	3%	1%	250	280	630	140	420	T T G G A C C T C A A C T T C C T G C T G G T G T C C T C C C T C C T G										4%	2%
RNF34-NM_001256858.2eU1357-3'UTR+719	0					0			3	69%	5%	340	300	790	180	370	A C A T T G T T T T G T A T A G T G A A G G T G T A T T T T C A G T G C									66%	67%	75%
RNH1-NM_002939.4eU697-NP_002930.2aa93Q*	0					0			3	5%	3%	400	260	560	330	210	C C C T C C T G C A A G A T C C A G A A G C T G A G C C T C C A G A A C									4%	8%	4%
RNPEP-NM_001319182.2eU1023-NP_001306111.1aa307LL	0					0			3	2%	1%	390	220	530	260	430	G G G T G A T C A G G A T C A G T T T G A C A G T T T C T C A A G G C									2%	2%	3%
ROCK2-NM_001321643.2eU7741-3'UTR+3551	0					0			3	5%	1%	260	200	630	80	500	A A A T T A T A A A T A T T T G A T C A G C T G T C C T C T C T G A A A									4%	7%	6%
RP2-NM_006915.3eU3016-3'UTR+1905	0					0			3	7%	2%	470	390	750	430	410	T T T G T A T T T T T A G T T G A G A T G G G T T T T C C A C G T T									8%	4%	9%
RP9-NM_203288.2eU1094-3'UTR+396	0					0			3	47%	22%	270	160	740	220	290	G G T C C C A T A G A C A T C A G G C T G G A G T C T T C T C T G T T G									27%	44%	71%
RPA1-NM_001355120.2eU1273-NP_001342049.1aa379SS	0					0			3	5%	1%	370	220	590	480	80	A G T C T C T G A T T T C G G T G G A C G G A G C C T C T C C G T G C T									5%	4%	6%
RPA3-NM_002947.5eU1632-3'UTR+94	0					0			2	2%	1%	320	220	510	220	340	T T G T T T G A G G G A G A G A T T T C T G T G C T T T C T C A T A T T									3%		2%
RPL10A-NM_007104.5eU527-NP_009035.3aa165LL	0					0			3	18%	2%	250	300	710	190	390	A T C A A G T T C C A A A T G A A G A A G G T G T A T G T C T G G C T									17%	16%	20%
RPL14-NM_001034996.3eU674-NP_001030168.1aa181Q*	4	2%	0%	2%	0%	0			3	2%	1%	260	240	710	350	320	A A A A A G G C T C C A G C C C A G A A G G T T C C T G C C C A G A A A 2%	2%	2%	1%						3%	1%	2%
RPL22-NM_000983.4eU641-3'UTR+232	0					0			3	7%	1%	410	320	690	270	430	A T A C C A G A G T A G A A G G A G A G G G T G A C T T T A C C G A A C									8%	7%	7%
RPL35A-NM_000996.4eU168-NP_000987.2aa35AV	0					0			3	2%	0%	310	330	710	210	410	C A G C T C T T C T T A A A A T T G A A G G T G T T A C G C C C G A G									1%	1%	2%
RPL5-NM_000969.5eU939-NP_000960.2aa288LL	0					0			3	2%	0%	490	180	450	420	570	T C G G G T A G C T C A A A A G A A G G C A A G C T T C C T C A G A G C									2%	2%	2%
RPL8-NM_000973.5eU515-NP_000964.1aa160SL	4	5%	2%	6%	1%	3	0%	0%	3	2%	0%	360	40	610	500	350	T G C C C T C C G G C T C C A A G A A G G T T A T C T C C T C A G C C A 7%	6%	6%	3%	0%	0%	0%			2%	2%	2%
RPN2-NM_001135771.3eU1466-NP_001129243.1aa480SL	0					0			3	2%	1%	340	240	580	390	230	T C A T C A A G T T C C C T G A G G A A G A A G C T C C C T C G A C T G									3%	3%	2%
RPRD1A-NM_001303413.2eU169-NP_001290342.1aa5SF	0					0			2	7%	4%	440	110	470	400	300	A A C G T G G T G T C G G A G G G A T G T C A G C C T T C T C T G A G G										5%	10%
RPRD1B-NM_021215.4eU1645-3'UTR+462	0					0			3	7%	3%	380	280	430	650	280	A G G C A C T T G T C C T G G A G A C G T T G G C T T T C C C A G C T G									7%	10%	3%
RPS10-NM_001202470.3eU1093-3'UTR+179	0					0			2	6%	0%	510	320	640	380	300	G C T G T T T G G T G T T A A G T G A T G G G G C T T T T C T T C T G									6%	6%	
RPS13-NM_001017.3eU95-NP_001008.1aa23PP	0					0			3	9%	1%	480	70	620	400	140	G T C G G C T T T A C C C T A T C G A C G C A G C G T C C C C A C T T G									8%	9%	9%
RPS14-NM_001025070.2eU122-5'UTR-130	0					0			2	5%	2%	410	370	550	610	270	G G G G C T T G G G A C G A G A G A C G G G G G T C T T T C C G T G G G									4%	6%	
RPS14-NM_001025071.2eU122-5'UTR-136	0					0			2	5%	1%	410	370	550	610	270	G G G G C T T G G G A C G A G A G A C G G G G G T C T T T C C G T G G G									6%		4%
RPS21-NM_001024.4eU291-NP_001015.1aa80SL	4	12%	4%	14%	2%	0			3	1%	0%	220	210	760	80	290	T C C G A T T G G C C A A G G C C G A T G G C A T C G T C T C A A A G A 12%	16%	13%	6%						1%	1%	1%
RPS21-XM_024451959.1eU1513-3'UTR+360	4	18%	3%	19%	1%	0			3	2%	0%	220	210	760	80	290	T C C G A T T G G C C A A G G C C G A T G G C A T C G T C T C A A A G T 19%	20%	20%	13%						3%	2%	2%
RPS4X-NM_001007.5eU182-NP_000998.1aa43PP	1	0%		0%		3	2%	1%	3	10%	2%	420	300	670	360	510	C G G T C C C C A C A A G T T G A G A G A G T G T C T C C C C C T C A T 0%						1%	2%	1%	10%	9%	12%
RPTOR-NM_001163034.2eU4551-3'UTR+225	0					0			2	12%	5%	310	310	770	240	280	A G G G G A G G G C T C G G G T T G A C G G T G G C T T C C C A C T G A									9%	16%	
RRAGA-NM_006570.5eU1380-3'UTR+205	0					0			3	10%	0%	370	260	620	160	170	G C T A C C C A G T A G A G C T T G A A G C T G A C C T T T C T G A G A									9%	10%	10%
RRBP1-NM_001042576.2eU3414-3'UTR+167	0					0			3	7%	0%	270	330	670	220	230	A G T C T C T T A G A G C C A C A G A A G T A G A C C T T C C A G A G C									7%	7%	7%
RRM1-NM_001033.5eU812-NP_001024.1aa200HY	0					0			3	2%	0%	440	100	760	380	430	T A T A A T C T T C T T T C T G A G A G G T G G T T T A C T C A T G C T									2%	3%	2%
RRP1B-NM_015056.3eU839-NP_055871.1aa245SF	0					0			3	14%	1%	250	210	690	80	430	A G A A G A C A A A A G T G G G T G A T G G T G A C C T C T C T G C T G									15%	13%	15%
RRP1-NM_003683.6eU1028-NP_003674.1aa325YY	0					1	4%		3	16%	3%	460	320	730	210	320	C A C C C C T T C T C A G A A C A G A A A G C G T C T C T A C A A A G T						4%			14%	19%	15%
RSRC1-NM_001271834.2eU2069-3'UTR+1127	0					0			3	16%	6%	350	260	690	460	410	T T T G T G T T T T T A G T A G A G A T G G G G T T T C A C C A T T T T									15%	11%	22%
RSRC2-NR_036434.2eU334-ncr	0					0			3	4%	2%	300	0	630	210	240	G A A G A G A G A C T G A A C T G A A G A C G C T G C A G A C T C A G A T A									3%	6%	4%
RTEL1-NM_001283009.2eU264-5'UTR-63	0					0			2	8%	2%	540	390	620	290	260	G A G A C C C T A A G A T G T T C G G A G T G G T T T T T T C G C A C A									9%		7%
RTKN2-NM_145307.4eU2231-3'UTR+167	0					0			2	25%	4%	400	250	750	330	280	A A A C A T T T T A T A A T G A A G A A G T G G A T T T C T C T T T T A										23%	28%
RTKN-NM_001015055.2eU1698-NP_001015055.1aa526PL	0					0			2	34%	9%	250	120	660	370	300	C C C G A A C C T T T T C C C T G G A T G C T G T C C C C C C A G A C C									40%	27%	
RTN4-NM_001321859.2eU1085-NP_001308788.1aa156SL	0					0			3	19%	5%	520	140	690	290	130	A A T T G G T T A A A G A G G A T G A A G T T G T G T C T T C A G A A A									24%	15%	18%
RUNDC1-NM_001321381.3eU2384-3'UTR+524	0					0			2	10%	4%	280	90	530	440	470	G T C T C A A A A A A A A A A A G A A G G T T G T A C C C A C A G T A T									7%		13%
RUVBL1-NM_001319084.2eU495-NP_001306013.1aa136TI	0					0			3	4%	1%	200	240	690	120	330	A G A C C A A G G A A G T T T A T G A A G G T G A A G T C A C A G A G C									4%	4%	3%
RWDD2B-NM_001320724.2eU477-NP_001307653.1aa74LL	0					0			3	9%	3%	310	210	650	210	460	G T A T C T G A C G A A A A A A T G G C G A T G T T T C T C T G G C C									12%	9%	6%
RXRA-NM_001291920.2eU5459-3'UTR+3229	0					0			2	8%	4%	340	210	630	420	270	T T G T G T T T A T T T T T A A T C A A G A C G T T T C C C C T G T T T									5%		11%
RYBP-NM_012234.6eU134-5'UTR-51	0					0			2	32%	4%	470	280	640	500	210	T C C G C G A C G A C T C C C C G G A C G G C G T T C T C C T C C G A										35%	30%
S100A11-NM_005620.2eU241-NP_005611.1aa51TI	0					0			3	4%	0%	260	200	650	230	330	G C T T C A T G A A T A C A G A A C T A G C T G C C T T C A C A A A G A									3%	4%	3%
S1PR1-NM_001320730.2eU1424-3'UTR+19	0					0			3	16%	1%	250	200	700	300	300	T C T T C T T C C T A G A A C T G G A A G C T G T C C A C C C A C C G G									15%	17%	16%
SACM1L-NM_001319071.2eU1668-NP_001306000.1aa533SL	0					0			3	19%	3%	340	180	620	270	140	C T T T G C C T A T T A T C A T G G T T G T T G C C T T T T C A A T G T									16%	18%	22%
SACS-NM_001278055.2eU9407-NP_001264984.1aa2973RC	0					0			2	12%	6%	310	150	690	310	180	A C T A A T T G C C A T A T T G G G A A G C T G C C T T G T C T G C T G										8%	17%
SAMD9L-NM_001303496.3eU4647-NP_001290425.1aa1206YY	0					0			3	6%	1%	550	210	550	510	240	T T T C T T G G G T G A A A T A G A A G T T G G T C T T T A C A C T A T									8%	5%	6%
SAMD9-NM_001193307.2eU5247-3'UTR+352	0					0			3	14%	4%	480	130	600	390	350	C C A G G C A T G G A T T G A A G A A G A T T G T C T A C T C A A A T G									9%	16%	17%
SAP130-NM_001145928.2eU2473-NP_001139400.1aa777SL	0					0			3	5%	1%	280	230	590	130	250	G T C C C C C G T C A C A A C C A G C C G T T G C C C T T T C A A C C A									5%	4%	5%
SAP18-NM_001366643.2eU490-NP_001353572.1aa93PL	0					0			2	3%	0%	300	190	730	320	290	A A C T G A C A A G C T T A G T A A A A G A A G T C T A C C C A G A A G									3%		3%
SAP18-NM_005870.4eU329-NP_005861.2aa97PL	0					0			3	2%	1%	300	190	730	320	290	A A C T G A C A A G C T T A G T A A A A G A A G T C T A C C C A G A A G									2%	3%	2%
SARS1-NM_001330669.1eU608-NP_001317598.1aa170HY	0					0			3	23%	1%	250	200	750	200	280	G G T G A T T G T A C A G T C A G G A A G A A G T A C T C T C A T G T G									21%	24%	24%
SARS1-NR_034072.1eU2512-ncr	0					0			2	16%	9%	320	150	730	280	410	T G T G T A T T T T T T G T A G A G A T G G A G T T T C G T C A T G T T									10%	23%	
SAV1-NM_021818.4eU349-NP_068590.1aa4R*	0					0			3	5%	1%	360	290	480	590	340	C C T C G G G C C T C G T C G A G A A G G A T G C T G T C C C C G A A A G									6%	5%	4%
SCAF11-NM_004719.3eU410-NP_004710.2aa56PL	0					0			3	11%	2%	330	420	650	470	200	A T T G T C T A T T A G A A A A G G A A G T T G G T T T T C C A G A A A									10%	11%	13%
SCAF11-XM_024449274.1eU455-5'UTR-1131	0					0			2	18%	1%	330	420	650	470	200	A T T G T C T A T T A G A A A A G G A A G T T G G T T T T C C A G A A A									17%		18%
SCAF11-XM_024449274.1eU588-5'UTR-998	0					0			2	11%	2%	300	380	600	220	320	A T A A C C A G A G C A G A T A C G A T A G T G T C C T T C C A T T T T										9%	12%
SCAF8-NM_001286188.1eU319-NP_001273117.1aa92LL	0					0			3	14%	6%	260	300	570	320	360	G T G A A G A C C T T C A A T A G C G A G T T G T A T T C C C T G A A T									11%	10%	21%
SCAF8-NM_014892.5eU525-NP_055707.3aa14LL	0					0			3	20%	5%	260	300	570	320	360	G T G A A G A C C T T C A A T A G C G A G T T G T A T T C C C T G A A T									25%	14%	21%
SCAMP3-NM_005698.4eU1180-NP_005689.2aa324SF	0					0			2	4%	3%	280	310	740	100	350	C C C A G C A A G A A T T T G C T G C T G G T G T C T T C T C C A A C C									2%		6%
SCAMP4-NM_001329539.2eU1403-3'UTR+679	0					0			3	3%	1%	460	200	640	490	290	A A A A C A G G G A T C C C T G G C A G G C T G T C T T T C A C G C C									2%	4%	3%
SCCPDH-NM_016002.3eU941-NP_057086.2aa309LL	4	50%	15%	57%	3%	3	6%	1%	3	14%	2%	280	240	810	220	220	T G T G A G G T T T G G A A T T G G A A G G C A A C T T C T C A T A A A 59%	60%	53%	27%	7%	5%	7%			13%	16%	13%
SCD-NM_005063.5eU1465-3'UTR+113	0					0			3	3%	1%	190	130	610	290	290	A C C A G G A T G C T A A A G A T G A T G A T G T T A A C C C A T T C C									2%	3%	2%
SCD-NM_005063.5eU2775-3'UTR+1423	4	8%	3%	10%	2%	0			3	9%	0%	440	300	740	410	230	G A A A T G A G T A A A A A C T A G A A G G C T T C T C T C A C A G T 11%	10%	8%	4%						8%	9%	9%
SCD-NM_005063.5eU5090-3'UTR+3738	0					0			3	54%	0%	540	130	690	320	260	T G C C A C G G A A A C A T A C A G A G G A T G C C T T T T C T G T G A									54%	54%	54%
SCN9A-NM_001365536.1eU1892-NP_001352465.1aa532PS	0					0			2	14%	6%	440	170	720	370	390	A G G C G A G C A C A T G A A A A G A G G T T G T C T A C C C C C A A T									18%	9%	
SCO1-NM_004589.4eU963-3'UTR+31	0					0			2	8%	4%	310	70	730	260	210	C C A A A G C A G T G T T G C T G G A T G C A G T A T T C T C T T G C T									5%		11%
SCRN1-NM_001145513.1eU2049-3'UTR+627	3	3%	1%	3%	0%	0			3	38%	7%	210	220	870	320	350	C A T C C T G G G C T C C T G A A G A A G C T G T C T T C C C A T T T T		3%	4%	2%					37%	46%	31%
SDC4-NM_002999.4eU1655-3'UTR+1018	0					0			3	15%	3%	450	140	650	370	220	T G G C C T T G G C C C T T T C T G A A G C T G C T T C C T C T T A T A									12%	18%	17%
SDC4-XM_011528977.2eU1510-3'UTR+1018	0					0			3	50%	7%	450	140	650	370	220	T G G C C T T G G C C C T T T C T G A A G C T G C T T C C T C T T A T A									56%	43%	51%
SDCBP-NM_001007067.2eU754-NP_001007068.1aa233LL	0					0			2	2%	0%	540	230	820	180	290	A G A T A G C T C T G C A G C C A G A A A T G G T C T T C T C A C G G A									2%	2%	
SDF4-NM_016176.6eU586-NP_057260.3aa101SF	4	5%	2%	6%	1%	0			2	1%	0%	390	320	510	390	190	G G A G C C G G A G G A A G C T G A T G G T C A T C T T T T C C A A G G 7%	6%	6%	2%						1%		1%
SDHA-NM_001294332.2eU846-NP_001281261.1aa270LL	0					0			3	2%	0%	480	230	560	520	310	G G A A G G A T G T C G T G G A G A G G G A G G C A T T C T C A T T A A									2%	2%	1%
SDHB-NM_003000.3eU270-NP_002991.2aa86TI	0					0			3	4%	2%	370	140	590	290	150	T A A T C A A G A T T A A G A A T G A A G T T G A C T C T A C T T T G A									5%	5%	2%
SDSL-NM_001304993.2eU162-NP_001291922.1aa15HY	0					0			2	7%	2%	380	350	670	170	270	G T G G C A G A G C A T G C C A A G C A G G A G C C T T T C A C G T G									8%	5%	
SEC14L1-NM_001039573.3eU900-NP_001034662.3aa209PL	0					0			3	5%	1%	160	140	680	220	250	A A C A A G C A G C G T C C A T G G C C G T C G T C A T C C C A G A A G									4%	6%	5%
SEC14L1-NM_001143998.2eU3568-3'UTR+1146	4	54%	21%	64%	4%	0			3	21%	5%	220	240	790	180	380	A A C T T A G T T T G A G T A A T G A A G G A A T C T T C A C A G A A G 60%	68%	65%	24%						16%	25%	21%
SEC16A-NM_001276418.2eU6045-NP_001263347.1aa1901PL	0					0			3	7%	2%	340	280	650	350	290	C T G G A G T A T G G C A T C A G G A T G G A G C C C T C C C G C A G C									4%	8%	8%

| | | |

SMARCC1-NM_003074.4eU1253-NP_003065.3aa386PL	0					0			3	5%	1%	270	480	630	260	260	C	T	G	T	A	C	C	C	A	A	T	A	T	A	G	A	A	G	A	A	G	T	A	G	T	A	C	T	T	C	C	C	A	A	A	A																			5%	6%	4%
SMARCC1-NM_003074.4eU1254-NP_003065.3aa386PP	0					0			3	3%	1%	430	270	480	630	260	T	G	T	A	C	C	C	A	A	T	A	T	A	G	A	A	G	A	G	T	A	G	T	A	C	T	T	C	C	C	A	A	A	A																			5%	2%	2%
SMC2-NM_001042550.2eU3673-NP_001036015.1aa1134HY	0					0			3	13%	1%	390	0	700	230	280	A	C	C	C	A	A	A	A	C	A	T	T	G	G	A	C	A	G	A	T	G	C	T	G	C	G	T	A	C	T	C	A	T	T	T	C																	14%	11%	14%
SMC2-NM_001042550.2eU3773-NP_001036015.1aa1167TI	1	3%		3%		0			3	51%	4%	330	210	650	400	320	T	C	A	A	A	A	C	C	A	A	G	T	T	T	G	T	G	G	A	T	G	G	T	G	T	T	T	C	T	A	C	A	G	T	A	G		3%														48%	54%	53%
SMC5-NM_015110.4eU132-NP_055925.2aa11PS	0					0			3	12%	3%	300	230	770	120	250	A	T	G	G	C	G	A	C	T	C	C	G	A	G	C	A	A	G	A	A	G	A	C	G	T	C	A	A	C	T	C	C	A	A	G	C																	11%	9%	16%
SMCHD1-NM_015295.3eU6457-3'UTR+89	0					0			3	2%	1%	340	230	740	370	300	C	T	G	T	T	T	C	A	G	A	A	G	A	C	C	A	A	G	A	G	G	G	T	G	A	C	T	T	A	C	C	A	G	A	C	T																	2%	3%	2%
SMDT1-NM_033318.5eU164-NP_201575.3aa32SF	0					0			3	8%	1%	210	320	720	190	400	G	G	C	C	T	A	G	C	T	T	G	A	G	G	A	A	A	G	A	T	G	G	C	G	A	T	G	C	T	C	C	G	C	C	G																	6%	9%	8%
SMG1-NM_015092.5eU13720-3'UTR+2367	0					0			2	14%	2%	430	250	660	220	340	A	C	T	A	T	A	G	A	T	A	G	T	A	T	T	C	A	G	A	A	A	T	T	G	C	T	T	T	C	T	C	T	T	T	G	G																	16%	13%	
SMG1P3-NR_027155.2eU160-ncr	0					0			2	9%	2%	340	70	700	360	300	C	G	C	A	G	G	G	C	C	C	T	G	G	A	A	G	A	G	A	C	G	T	C	G	C	C	T	C	C	C	T	T	C	A	T																	8%	11%	
SMPD4BP-NR_026922.1eU740-ncr	0					0			3	6%	2%	220	350	710	220	300	T	A	C	C	T	G	C	C	T	G	G	T	C	C	T	G	T	G	A	A	G	G	C	G	T	C	C	A	T	C	C	A	G	G	A	G																	5%	4%	8%
SMPD4-NM_017751.4eU640-NP_060221.2aa162Q*	0					0			3	6%	1%	220	350	710	220	300	T	A	C	T	T	G	C	C	T	G	G	T	C	C	T	G	T	G	A	A	G	G	C	G	T	C	C	A	T	C	C	A	G	G	A	G																	6%	5%	7%
SMTN-NM_001207018.2eU2839-NP_001193947.1aa921SL	0					0			3	5%	2%	480	110	770	360	180	A	C	C	G	A	C	G	C	C	A	G	A	A	C	T	T	C	G	A	G	G	T	G	G	C	C	T	T	C	T	C	A	T	C	T	G																	3%	6%	4%
SMU1-NM_018225.3eU2192-3'UTR+584	0					0			3	15%	8%	350	260	690	460	410	T	T	T	G	T	A	T	T	T	T	A	G	T	A	G	A	G	A	T	G	G	G	G	T	T	C	A	C	C	A	T	G	T	T																	18%	5%	21%
SNAP47-NM_001323930.2eU385-NP_001310859.1aa62HY	0					0			3	6%	2%	210	320	850	180	350	A	G	C	A	T	A	G	T	T	G	A	G	A	T	C	A	A	G	A	A	G	G	A	G	G	C	T	T	C	A	C	A	T	T	T	T																	5%	5%	7%
SNAPC5-NM_001329614.2eU337-NP_001316543.1aa14HY	3	13%	5%	12%	7%	0			3	30%	11%	420	70	870	180	430	T	C	T	A	G	A	G	G	G	G	G	A	T	G	A	G	A	T	G	C	T	G	T	C	T	C	T	C	A	C	A	C	T		17%	8%	14%													21%	42%	28%
SNAPC5-NM_001329615.2eU185-NP_001316544.1aa52HY	4	10%	3%	11%	4%	0			3	34%	3%	420	70	870	180	430	T	C	T	A	G	A	A	G	A	G	G	G	G	A	T	G	A	G	A	T	G	C	T	G	T	C	T	T	C	T	C	A	C	A	C	T	13%	7%	13%	7%												32%	37%	34%
SNHG12-NR_024127.2eU438-ncr	0					0			3	67%	3%	380	360	720	250	360	A	G	A	C	T	C	T	T	A	A	G	A	T	G	A	C	A	G	A	A	G	G	T	G	A	T	T	T	T	C	T	G	G	T	G																	66%	65%	70%
SNHG12-NR_146383.1eU438-ncr	0					0			3	69%	31%	380	360	720	250	360	A	G	A	C	T	C	T	T	A	A	G	A	T	G	A	C	A	G	A	A	G	G	T	G	A	T	T	T	T	C	T	G	G	T	G																	89%	86%	33%
SNHG1-NR_003098.2eU457-ncr	0					0			3	4%	2%	390	450	720	180	260	T	G	T	C	T	T	G	G	A	G	G	A	C	A	T	C	A	G	A	A	G	G	T	G	A	A	T	T	T	T	C	C	A	A	G	T																	4%	3%	6%
SNHG29-NR_027159.1eU565-ncr	4	24%	9%	28%	1%	0			3	6%	1%	300	180	580	530	350	G	C	A	T	C	T	C	A	G	C	C	C	A	A	G	A	G	A	G	G	T	T	A	T	A	T	T	C	C	C	A	G	A	G	G	29%	27%	29%	11%												8%	6%	6%
SNHG29-NR_027160.1eU688-ncr	4	23%	7%	27%	2%	0			2	7%	2%	300	180	580	530	350	G	C	A	T	C	T	C	A	G	C	C	C	A	A	G	A	G	A	A	G	G	T	T	A	T	A	T	T	C	C	C	A	G	A	G	G	24%	28%	27%	13%												8%	5%	
SNIP1-NM_024700.4eU2217-3'UTR+962	0					0			3	18%	5%	360	230	660	270	460	T	T	A	A	A	A	G	T	T	G	T	T	G	A	G	A	G	G	G	T	T	G	T	A	T	T	T	A	C	C	T	T	C	C																	16%	15%	23%
SNIP1-NM_024700.4eU341-NP_078976.2aa93RC	0					0			3	26%	7%	590	40	550	460	330	A	A	G	G	C	C	T	C	A	G	G	G	A	G	A	A	G	A	A	G	C	A	A	G	T	C	T	C	C	T	C	G	C	A	G	T																	18%	33%	27%
SNRNP200-NM_014014.5eU190-NP_054733.2aa27LL	0					0			3	2%	1%	330	220	500	320	420	G	A	A	T	C	T	T	G	T	G	C	T	C	C	A	A	G	C	T	G	A	C	C	G	T	T	C	T	C	T	C	A	T	T	G	A																	2%	3%	1%
SNRNP25-NM_024571.4eU254-NP_078847.2aa22SF	0					0			2	3%	0%	400	180	690	160	170	C	G	A	T	C	C	A	G	G	T	T	A	C	T	C	T	G	G	A	A	G	A	G	A	A	G	T	C	A	A	C	T	C	C	C	A	A	A																3%	3%	
SNRNP48-NM_152551.4eU940-NP_689764.3aa294R*	0					0			2	5%	1%	250	290	520	60	590	G	G	T	G	G	A	A	G	C	T	A	T	T	T	G	G	A	T	G	C	T	G	A	G	T	G	T	T	C	A	C	G	A	C	A	T																		4%	6%	
SNRNP70-NM_001301069.2eU1498-3'UTR+15	0					0			2	2%	0%	290	270	790	210	400	G	G	C	T	G	C	G	G	G	A	G	T	G	A	A	G	A	G	G	T	C	G	T	C	C	T	C	T	C	C	A	T	C	T																		2%	2%	
SNRPC-NM_003093.3eU490-NP_003084.1aa151RW	0					0			3	4%	1%	250	140	630	170	310	C	C	T	C	C	T	G	C	C	C	G	T	C	C	C	A	T	G	A	T	G	G	T	G	C	C	C	A	C	T	C	G	G	C	C	C																	5%	3%	4%
SNRPF-NM_003095.5eU289-NP_003086.1aa56SF	0					0			3	9%	2%	350	220	680	260	300	A	T	A	C	A	G	A	A	G	A	A	T	A	C	A	T	A	G	A	T	G	G	A	G	C	T	T	G	T	C	T	G	G	A	C																	8%	8%	11%
SNW1-NM_001318844.2eU223-NP_001305773.1aa65PL	0					0			3	5%	1%	330	510	610	400	330	T	A	G	A	G	G	A	T	T	T	T	G	G	A	G	A	T	G	G	A	G	G	T	G	C	T	T	T	T	C	C	A	G	A	G	A																	5%	3%	6%
SNX14-NM_001297614.3eU1308-NP_001284543.1aa390HY	0					0			3	5%	2%	390	100	660	370	330	G	A	A	T	T	A	T	C	A	A	A	T	G	A	T	G	A	A	T	G	C	T	G	T	C	T	T	C	A	T	G	A	A																	5%	4%	7%
SNX14-NM_001297614.3eU1759-NP_001284543.1aa540PL	0					0			3	9%	1%	370	270	590	500	160	A	A	G	G	T	A	T	T	G	T	T	G	T	A	A	T	G	G	A	A	G	A	T	G	A	T	T	C	T	C	C	A	G	T	G	G																	8%	10%	9%
SNX17-NM_001267059.2eU613-NP_001253988.1aa162SF	0					0			3	34%	6%	420	220	690	350	120	T	A	G	T	T	C	G	A	G	A	A	A	A	G	A	G	G	A	T	G	G	A	G	C	C	T	T	T	T	T	G																							35%	40%	28%
SNX19-NM_001301089.2eU606-NP_001288018.1aa74RC	0					1	6%		2	18%	8%	500	190	700	280	390	A	T	T	G	T	G	G	A	C	A	C	C	T	T	G	A	A	G	A	C	A	G	C	G	T	T	T	C	C	T	C	G	C	T	C	T															6%		13%	23%
SNX3-NM_001300928.2eU420-NP_001287857.1aa101HY	0					0			3	52%	5%	210	110	710	300	400	T	C	C	T	C	T	G	G	C	A	C	G	A	A	C	G	T	A	G	A	A	C	G	T	T	G	C	T	T	C	A	C	A	T	G	T	T																	48%	50%	58%
SNX3-NM_001300929.2eU479-NP_001287858.1aa120HH	1	1%		1%		0			3	50%	4%	210	110	710	300	400	T	C	C	T	C	T	G	G	C	A	C	A	G	A	A	C	G	A	A	C	G	T	T	G	C	T	T	C	A	C	A	T	G	T	T			1%														49%	47%	54%
SNX3-NM_003795.6eU545-NP_003786.1aa142HH	0					0			3	68%	17%	210	110	710	300	400	T	C	C	T	C	T	G	G	C	A	C	A	G	A	A	C	G	A	A	C	G	T	T	G	C	T	T	C	A	C	A	T	G	T	T																	57%	58%	88%
SNX4-NM_003794.4eU1813-3'UTR+430	0					1	5%		3	16%	5%	270	290	690	290	420	C	C	A	C	T	A	A	T	C	T	G	T	T	A	T	A	G	G	G	A	G	T	T	G	T	T	T	C	T	T	G	C	C																5%	13%	14%	23%
SNX5-NM_001282454.2eU469-NP_001269383.1aa37SF	0					0			2	2%	1%	710	180	500	500	350	A	T	C	T	C	G	C	T	G	T	G	T	T	T	A	A	G	A	A	G	A	C	T	G	T	G	T	C	C	T	C	C	C	A	T	G																	1%	2%	
SNX5-NM_001282454.2eU471-NP_001269383.1aa38HY	0					0			3	11%	2%	150	280	710	180	500	C	T	C	G	C	T	G	T	G	T	T	A	A	G	A	A	G	A	C	T	G	T	G	T	C	C	T	C	C	A	T	G	A	A																	9%	13%	10%
SOAT1-NM_001252511.2eU1763-3'UTR+21	0					0			3	4%	1%	320	160	580	320	290	C	G	T	G	T	T	T	T	A	G	A	A	G	C	T	T	G	G	A	C	T	T	T	G	T	T	T	C	C	T	C	C	T	T	G	T																	3%	5%	4%
SOAT1-NM_001252511.2eU473-NP_001239440.1aa70LL	0					0			3	8%	3%	340	350	640	280	350	A	G	G	A	A	A	G	A	T	T	T	T	A	T	T	G	C	A	A	G	G	C	G	C	T	C	T	C	T	C	T	T	A	G	A																	8%	11%	6%
SOAT1-NM_003101.6eU532-NP_003092.4aa128LL	0					0			2	27%	5%	340	350	640	280	350	A	G	G	A	A	A	G	A	T	T	T	T	A	T	T	G	C	A	A	G	G	C	G	C	T	C	T	C	T	C	T	T	A	G	A																		30%	23%
SOCS6-NM_004232.4eU1098-NP_004223.2aa309PL	0					0			2	6%	2%	410	180	590	330	200	G	C	C	C	G	A	G	A	G	C	G	G	T	C	A	C	G	A	T	G	A	T	G	T	C	C	T	C	C	A	C	T	C	T																		4%	7%	
SOCS7-NM_014598.4eU2413-3'UTR+266	0					0			2	10%	5%	400	80	700	290	120	G	G	C	T	C	C	T	T	G	G	A	A	A	A	C	T	G	G	A	A	G	A	A	G	T	C	T	C	A	A	C	A	C	T	G	T																		7%	13%	
SOD2-NM_000636.4eU859-3'UTR+116	0					0			3	20%	5%	410	60	590	260	120	C	T	A	T	T	G	T	A	G	C	A	T	T	T	C	T	T	G	A	T	G	T	T	G	C	T	T	A	G	T	C	A	C	T	T	A																	14%	25%	21%
SP100-NM_001080391.2eU1133-NP_001073860.1aa346SL	3	2%	0%	2%	0%	0			2	2%	0%	170	150	800	140	290	A	C	G	T	T	G	A	T	G	A	G	C	C	C	T	T	A	G	A	A	G	T	C	T	T	C	A	T	C	T	C	A	G	C	A	C	1%	2%	2%												2%		2%
SP100-NM_003113.4eU3042-3'UTR+306	3	5%	3%	5%	3%	0			3	48%	3%	480	230	550	460	370	A	T	T	A	G	T	T	G	T	A	T	A	T	G	A	G	G	A	T	G	G	T	A	G	T	T	T	T	T	C	A	C	C	T	T	8%	3%	4%													50%	48%	45%
SP110-NM_001185015.2eU834-NP_001171944.1aa223LL	2	1%	0%	1%	0%	0			3	17%	3%	420	80	500	220	430	A	G	A	A	G	A	C	T	C	A	G	A	A	G	A	T	G	C	C	A	G	C	C	T	C	C	T	C	A	C	T	A	G	1%		1%														14%	20%	17%
SP1-NM_001251825.2eU6824-3'UTR+4494	0					0			3	4%	1%	340	330	470	530	500	T	T	G	A	T	A	C	C	T	C	T	G	C	T	G	G	G	A	T	G	T	G	T	G	C	T	T	T	C	C	C	A	T	A	T	C																	4%	4%	5%
SPAG9-NM_001130527.3eU4188-3'UTR+40	0					0			3	5%	1%	430	140	730	370	150	A	A	A	C	A	G	G	T	G	G	A	G	A	G	G	C	G	T	C	T	C	T	T	C	T	G	C	A	T																									4%	5%	5%
SPARC-NM_001309443.2eU3038-3'UTR+2065	4	31%	11%	36%	5%	3	1%	0%	3	2%	1%	360	130	630	380	310	A	C	A	T	A	C	C	T	A	G	A	T	C	T	C	C	A	G	A	T	G	T	C	A	T	T	T	C	C	C	C	T	C	T	C	T	41%	31%	36%	16%	1%	2%	2%	1%	2%	3%	
SPATS2L-NM_001100422.1eU2296-3'UTR+207	0					0			3	9%	2%	500	130	590	220	260	A	T	G	G	C	T	T	T	G	C	T	T	G	A	T	C	T	G	T	T	G	A	T	G	C	T	T	T	C	T	C	A	T	C																	8%	8%	11%
SPCS2-NM_014752.3eU278-NP_055567.2aa86TT	0					0			3	2%	1%	340	110	480	570	80	G	A	A	T	T	T	T	G	G	T	C	T	A	A	T	T	G	A	T	G	G	T	C	G	C	C	T	C	A	C	C	A	T	C	T	G																	1%	2%	3%
SPCS2-NM_014752.3eU589-NP_055567.2aa190TI	0					0			3	8%	2%	340	200	760	260	270	G	A	A	C	A	A	A	G	C	A	G	C	G	G	G	A	A	G	C	C	G	A	G	T	C	A	C	C	A	A	A	G	T																					9%	5%	9%
SPDYE2-XM_017012223.1eU4800-3'UTR+3107	2	43%	24%	60%		2	45%	46%	2	27%	7%	160	370	500	150	520	T	G	G	G	T	G	T	C	C	T	C	A	G	A	C	C	A	C	A	T	G	T	A	C	T	T	C	T	C	A	C	C	A	A	C	T	60%			26%	13%		78%	22%		32%	
SPG21-NM_001127889.5eU227-NP_001121361.1aa46LL	0					0			3	4%	1%	220	290	720	40	500	C	G	C	G	G	G	C	C	C	C	C	G	A	A	G	T	A	T	C	A	G	G	T	G	T	C	C	T	C	T	C	A	T	A	T	T																	5%	4%	3%
SPIN1-NM_006717.3eU350-NP_006708.2aa33HY	0					0			3	3%	1%	430	260	740	300	220	T	C	T	G	C	C	A	A	C	A	T	G	A	T	G	A	A	G	A	G	G	A	C	A	T	C	C	C	A	C	A	A	A																			2%	4%	3%
SPIN1-NM_006717.3eU3875-3'UTR+2833	4	7%	3%	8%	2%	0			3	78%	1%	280	430	730	350	360	C	A	A	A	T	G	T	A	G	T	G	C	C	A	A	C	A	G	A	A	G	G	T	G	A	T	T	T	T	C	C	A	G	T	T	G	10%	9%	6%	3%												77%	79%	79%
SPIN1-NM_006717.3eU826-NP_006708.2aa191RR	4	4%	3%	4%	3%	0			2	2%	0%	380	150	570	600	260	C	T	T	A	G	A	T	G	A	T	T	A	C	A	A	A	G	A	A	G	G	C	G	A	C	C	T	T	C	G	C	A	T	T	A	T	8%	3%	2%	2%													2%	2%
SPIN4-NM_001012968.3eU560-NP_001012986.2aa16AV	0					0			3	9%	4%	390	90	800	210	330	T	G	C	C	T	C	C	G	A	T	G	G	G	G	G	T	A	G	A	T	G	G	C	G	T	G	C	C	G	C	A	T	A	C	C																	13%	9%	4%
SPINDOC-NM_138471.3eU1044-NP_612480.1aa271PP	0					0			3	7%	1%	440	170	410	680	240	G	G	T	C	C	G	A	C	A	C	T	T	C	A	C	T	G	A	C	G	G	C	A	G	C	T	T	C	C	C	C	G	C	C	G	G																	6%	8%	6%
SPINDOC-XM_005273783.3eU1126-XP_005273840.1aa271PP	0					0			2	9%	3%	440	170	410	680	240	G	G	T	C	C	G	A	C	A	C	T	T	C	A	C	T	G	A	C	G	G	C	A	G	C	T	T	C	C	C	C	G	C	C	G	G																	7%	11%	
SPIRE1-NM_001128626.2eU1796-NP_001122098.1aa519Q*	0					0			2	9%	4%	330	110	440	590	180	A	C	A	C	C	C	C	A	G	C	A	G	A	G	A	G	C	A	G	C	C	A	C	C	C	C	A	G	A	G	A																								6%		12%
SPRED2-NM_001128210.2eU337-NP_001121682.1aa55LL	0					0			2	11%	5%	400	250	760	420	200	C	C	C	C	G	A	A	G	G	C	A	A	T	G	G	A	C	G	A	A	G	C	G	G	C	T	T	C	T	C	A	T	C	C	A																	15%		8%
SPRYD7-NM_020456.4eU273-NP_065189.1aa56AA	0					0			2	6%	0%	290	130	610	520	230	A	A	G	A	A	T	A	T	G	T	G	G	A	A	G	A	G	G	G	T	T	G	T	T	T	A	G	C	C	A	G	C	G	C																		6%	6%	
SREBF1-NM_001005291.3eU390-NP_001005291.1aa74PL	0					0			3	24%	4%	330	270	670	240	360	A	G	C	T	T	A	T	C	A	A	C	A	A	C	C	A	A	G	A	C	A	G	T	G	A	C	T	T	C	C	C	T	G	G	C	C																	24%	19%	28%
SREBF1-NM_001388385.1eU300-NP_001375314.1aa44PL	0					0			3	21%	12%	330	270	670	240	360	A	G	C	T	T	A	T	C	A	A	C	A	A	C	C	A	A	G	A	C	A	G	T	G	A	C	T	T	C	C	C	T	G	G	C	C																	22%	9%	33%
SREBF2-NM_004599.4eU1781-NP_004590.2aa539LF	0					0			3	17%	1%	390	0	660	270	160	G	G	G	G	G	C	T	G	G	T	T	G	A	C	T	G	G	A	T	G	A	T	G	C	C	A	C	T	C	T	T	C	T	C																	18%	18%	16%
SREK1-NM_001077199.3eU3657-3'UTR+1705	0					0			3	5%	3%	410	140	630	340	120	A	A	G	C	C	T	G	A	T	T	T	G	A	T	T	A	T	G	A	A	G	C	T	G	C	T	T	A	A	T	C	A	C	T	C	T																	3%	5%	8%
SRP14-NM_001309434.1eU640-3'UTR+103	2	1%	0%	1%	0%	0			3	37%	3%	220	300	780	170	580	T	T	T	C	T	G	G	T	T	C	C	C	C	C	A	C	A	G	T	A	G	G	T	G	T	T	T	C	A	C	A	T	A	A	G		1%	1%														34%	37%	39%
SRP14-NM_003134.6eU579-3'UTR+103	0					0			3	36%	5%	220	300	780	170	580	T	T	T	C	T	G	G	T	T	C	C	C	C	C	A	C	A	G	T	A	G	G	T	G	T	T	T	C	A	C	A	T	A	A	G																	36%	40%	31%
SRP19-NM_001204193.2eU198-NP_001191122.1aa36PP	0					0			3	19%	2%	310	240	740	390	300	G	A	A	G	A	C	C	A	T	C	G	C	A	G	A	G	G	G	A	A	G	A	G	C	G	A	A	T	C	C	C	C	A	T	A	A	G																	17%	18%	21%
SRP19-NM_003135.3eU198-NP_003126.1aa36PP	0					0			2	29%	3%	310	240	740	390	300	G	A	A	G	A	C	C	A	T	C	G	C	A	G	A	G	G	G	A	A	G	G	C	G	A	A	T	C	C	C	C	A	T	A	A	G																	27%		31%
SRPRA-NM_001177842.2eU2857-3'UTR+933	0					0			2	13%	3%	340	110	650	530	310	A	T	T	A	G	T	G	C	A	A	T	A	A	G	G	T	G	A	A	G	G	C	T	G	T	C	T	G	C	C	A	G	A	G	A																	11%		15%
SRRM1-NM_001303448.2eU1028-NP_001290377.1aa335PS	0					0			2	2%	1%	560	230	490	510	280	A	G	A	A	G	A	A	C	T	C	C	G	C	C	A	A	G	A	A	G	A	A	T	G	C	C	T	C	C	T	C	C	A	C	C	A																		2%	2%
SRRM1-NM_001303448.2eU586-NP_001290377.1aa187SS	0					0			3	8%	3%	360	490	610	290	250	C	A	G	A	T	C	T	C	C	T	T	C	C	C	C	T	A	G	A	A	G	A	G	A	T	C	T	T	C	C	C	C	T	G	T																	5%	8%	11%
SRRM1-NM_001303448.2eU587-NP_001290377.1aa188PS	4	9%	3%	10%	2%	0			3	3%	1%	420	360	490	610	290	A	G	A	T	C	T	C	C	T	T	C	C	C	C	T	A	G	A	A	G	A	C	G	A	T	C	T	T	C	C	C	C	T	G	T	C	10%	12%	8%	4%												2%	2%	4%
SRRM2-NM_016333.4eU2691-NP_057417.3aa817SS	0					0			3	3%	0%	270	130	630	330	150	A	T	C	T	A	G	A	A	C	G	C	C	A	C	C	C	A	G	A	C	G	C	A	G	T	C	G	C	T	C	C	A	G	T	T	C																	4%	3%	3%
SRSF1-NM_001078166.2eU377-NP_001071634.1aa90R*	0					0			2	2%	0%	330	280	630	320	400	G	A	T	G	G	G	T	A	C	C	G	T	C	T	G	C	G	G	G	T	G	G	A	G	T	T	C	C	T	C	G	A	A	G	C																		2%	2%
SRSF1-NM_001078166.2eU5247-3'UTR+4532	0					0			3	20%	6%	170	220	700	250	580	T	T	G	T	C	T	T	G	G	T	C	A	T	T	A	G	G	G	C	T	G	G	T	C	T	T	T	T	C	A	C	A	T	T	T	C																	14%	19%	27%
SRXN1-NM_080725.3eU840-3'UTR+411	0					0			3	36%	7%	590	340	500	600	310	G	T	G	G	T	T	T	A	A	A	C	A	A	A	C	A	G	A	A	G	A	T	T	G	T	T	T	T	C	C	A	C	A	T	A																	38%	28%	41%
SSH1-NM_018984.4eU3759-3'UTR+522	0					0			3	9%	2%	410	520	700	310	250	G	G	A	A	T	A	A	T	G	C	T	C	T	G	T	C	T	G	A	A	A	G	C	G	T	T	T	T	C	C	A	A	A	A	A																	7%	12%	9%

SSR1-NM_001292008.2eU1060-3'UTR+324	0					0			2	3%	0%	350	160	570	250	170	A	G	A	A	T	A	C	T	A	A	A	T	A	T	A	A	T	G	C	T	G	T	T	G	T	C	T	C	T	T	C	C	T	T	T	T								3%	3%	
SSR1-NM_001292008.2eU2133-3'UTR+1397	0					0			2	3%	0%	450	410	590	440	150	A	A	A	C	G	A	A	A	C	A	C	A	C	A	G	A	A	A	A	A	A	G	T	C	T	T	T	C	C	A	A	A	C	T								3%		3%
SSR4-NM_001204526.1eU282-NP_001191455.1aa55SF	0					0			3	2%	1%	280	280	640	160	170	C	C	T	A	C	T	A	C	A	C	C	A	C	T	T	C	T	G	A	C	G	C	T	G	T	C	A	T	T	T	C	C	A	C	T	G								2%	3%	2%
SSX2IP-NM_001166293.2eU1304-NP_001159765.1aa375SL	0					0			3	23%	8%	350	150	750	120	270	T	G	G	A	A	G	G	T	T	T	A	A	T	G	A	T	G	A	A	G	A	T	G	T	A	A	T	C	T	C	A	C	G	A	C								20%	17%	32%
SSX2IP-XM_005270429.2eU1339-XP_005270486.1aa375SL	0					0			3	37%	9%	350	150	750	120	270	T	G	G	A	A	G	G	T	T	T	A	A	T	G	A	T	G	A	A	G	A	T	G	T	A	A	T	C	T	C	A	C	G	A	C								46%	38%	27%
ST6GALNAC4-NM_175039.4eU1142-NP_778204.1aa284SF	0					0			2	4%	1%	540	250	700	550	290	A	C	C	G	C	T	T	C	A	T	C	A	C	T	G	A	G	A	A	G	G	C	G	G	T	C	T	T	C	T	C	C	G	C	T								3%		5%
STAG1-NM_005862.3eU3883-NP_005853.2aa1206R*	0					0			3	8%	2%	240	190	670	180	350	C	C	C	A	T	C	T	T	T	G	A	A	G	A	T	G	T	G	A	T	G	A	T	G	T	C	A	T	C	C	C	G	A	A	G	C								11%	8%	7%
STAG2-NM_001042749.2eU1686-NP_001036214.1aa406TI	0					0			2	2%	0%	230	260	660	150	510	T	T	G	T	T	T	T	A	C	A	G	A	G	T	A	G	T	G	A	A	G	A	A	G	T	T	C	T	C	A	C	T	G	C	A	G								2%	2%	
STAM-NM_001324282.2eU1405-NP_001311211.1aa406LF	0					0			3	7%	2%	420	150	780	140	430	T	A	C	G	T	C	T	T	T	C	C	C	C	G	G	A	G	C	A	G	C	T	G	T	C	T	T	C	T	C	A	G	C								5%	7%	9%
STARD3NL-NM_001363340.2eU242-5'UTR-50	3	5%	1%	5%	1%	0			3	43%	17%	310	240	780	260	350	A	G	T	T	T	G	G	A	T	A	A	G	T	T	T	A	G	C	A	A	G	G	T	G	T	C	T	T	C	T	C	T	T	T	A	G	5%	4%		4%				33%	32%	62%
STARD7-NM_001385622.1eU897-NP_001372551.1aa199RC	0					0			3	19%	1%	420	190	670	360	490	T	A	C	A	G	T	G	A	C	A	A	T	C	C	C	A	A	C	G	G	T	G	T	T	C	C	T	C	G	C	T	A	C								17%	20%	19%
STAT1-NM_001384880.1eU390-NP_001371809.1aa27PP	3	1%	0%	1%	0%	0			3	19%	3%	330	280	490	520	390	G	G	T	T	C	A	C	C	A	G	C	T	T	T	A	T	G	A	T	G	A	C	A	G	T	T	T	C	C	C	A	T	G	G	A	1%	1%	1%					16%	18%	21%
STAT1-NM_001384881.1eU473-NP_001371810.1aa29PP	0					0			2	17%	12%	330	280	490	520	390	G	G	T	T	C	A	C	C	A	G	C	T	T	T	A	T	G	A	T	G	A	C	A	G	T	T	T	C	C	C	A	T	G	G	A								25%	9%	
STAT2-NM_001385110.1eU3854-3'UTR+1274	0					0			3	7%	1%	420	320	690	500	410	T	T	T	G	T	A	T	T	T	T	T	A	G	T	A	G	A	G	A	C	G	G	G	G	T	T	C	T	C	C	A	T	G	T	T								6%	8%	6%
STAT2-NM_001385110.1eU4095-3'UTR+1515	1	2%		2%		0			2	2%	0%	300	230	650	360	250	T	G	T	T	G	T	T	T	A	C	C	T	G	A	A	A	G	G	A	A	G	G	T	T	C	T	A	T	T	C	G	T	T	G	G		2%							2%	2%	
STAT3-NM_001369512.1eU2350-NP_001356441.1aa729RC	0					0			2	3%	0%	350	120	530	210	300	A	G	C	A	A	T	A	C	C	A	T	T	G	A	C	C	T	G	C	C	G	A	T	G	T	C	C	C	C	C	G	C	A	C	T								3%	3%	
STAT5B-NM_012448.4eU1172-NP_036580.2aa340Q*	0					0			3	22%	5%	360	80	790	300	260	A	G	C	A	C	G	T	T	C	A	T	C	A	T	T	G	A	G	A	A	G	C	A	G	C	C	T	C	C	T	C	A	G	G	T	C								16%	22%	26%
STEEP1-NM_001170569.1eU691-NP_001164040.1aa128SL	0					0			2	5%	0%	300	140	630	280	340	A	G	G	A	G	A	T	T	G	A	G	G	C	T	A	G	G	G	A	A	G	T	T	G	C	T	G	A	C	T	C	A	T	A	T	G								5%	5%	
STIL-NM_001048166.1eU228-NP_001041631.1aa25HY	4	42%	11%	46%	8%	0			3	13%	8%	380	290	620	450	180	A	G	G	T	T	T	C	C	T	T	C	A	A	G	C	A	G	G	A	T	G	G	T	A	C	C	T	T	T	C	C	A	C	T	T	T	51%	38%	50%	28%				4%	17%	17%
STK40-NM_001282546.2eU2691-3'UTR+1158	0					0			3	5%	1%	300	180	510	450	310	C	C	G	A	G	A	T	T	T	T	G	A	G	T	G	G	A	T	G	C	C	G	T	C	T	T	G	C	C	A	G	A	A	A								6%	5%	4%
STMN1-NM_001145454.3eU232-NP_001138926.1aa47LL	4	5%	2%	6%	1%	0			3	4%	0%	250	370	670	460	360	C	T	T	T	C	C	C	C	T	C	C	A	A	G	A	A	G	A	A	G	G	A	T	C	T	T	T	C	C	C	T	G	G	A	G	7%	5%	5%	3%				3%	4%	3%
STMN1-NM_005563.4eU232-NP_005554.1aa47LL	3	6%	0%	6%	0%	0			2	6%	0%	250	370	670	460	360	C	T	T	T	C	C	C	C	T	C	C	A	A	G	A	A	G	A	A	G	A	T	C	T	T	C	C	C	T	G	G	A	G	7%	6%	6%						5%	6%	
STOM-NM_001270526.2eU1486-3'UTR+829	0					0			2	3%	1%	350	260	690	460	410	T	A	T	T	G	T	T	T	T	T	T	A	G	T	A	G	A	G	A	C	G	G	G	G	T	T	C	A	C	C	A	T	G	T	T									4%	3%
STRIP2-NM_020704.3eU2508-NP_065755.1aa823Q*	0					0			3	11%	3%	170	420	660	370	590	G	A	G	C	T	C	T	G	G	C	T	C	G	A	G	A	G	A	G	A	G	G	T	G	T	T	T	T	C	A	C	A	G	C	C	C								9%	9%	15%
STRN-NM_003162.4eU6844-3'UTR+4428	0					0			3	68%	18%	370	210	680	400	140	T	T	C	A	T	T	T	T	A	T	T	T	A	C	T	C	A	G	A	A	G	T	T	G	C	C	T	C	T	C	C	A	T	T	A	C								88%	53%	64%
STT3B-NM_178862.3eU2356-NP_849193.1aa761TI	0					0			3	8%	1%	360	210	700	310	90	T	T	A	A	A	T	T	C	A	A	A	C	A	T	T	G	G	A	A	G	A	A	G	C	C	T	T	T	A	C	A	T	C	A	G								7%	9%	7%
STT3B-NM_178862.3eU3147-3'UTR+592	0					0			3	4%	1%	370	320	660	320	240	A	C	T	G	T	T	T	G	C	T	C	T	G	A	G	A	A	G	A	G	C	T	G	C	T	T	G	T	T	T	C	A	A	A	G	A								5%	3%	5%
STX12-NM_177424.3eU849-NP_803173.1aa254LL	0					0			3	6%	3%	440	210	640	320	210	C	A	G	A	A	A	A	A	A	T	C	T	C	G	C	A	A	G	A	A	G	A	T	G	T	G	T	A	T	C	C	T	G	G	T	G								3%	10%	6%
STX16-NM_001001433.3eU4648-3'UTR+2946	0					0			2	5%	2%	350	170	520	170	490	G	T	C	T	C	T	G	A	T	T	T	A	C	G	G	A	T	T	C	A	C	T	G	T	T	T	T	C	T	C	T	G	C	T	A								6%	4%	
STX2-NM_001351049.2eU1516-3'UTR+531	0					0			3	32%	1%	300	330	750	390	450	G	T	T	T	T	C	T	T	T	T	T	A	G	T	A	G	A	G	A	C	G	G	G	T	T	T	A	C	C	A	T	G	C	T								32%	31%	32%
STXBP1-NM_001032221.6eU3562-3'UTR+1650	0					0			3	11%	1%	250	280	670	350	340	G	G	A	C	C	T	T	G	T	T	T	G	T	C	G	A	A	G	A	T	G	T	T	G	G	T	T	C	C	C	T	T	T	C	T								12%	10%	12%
STXBP1-NM_001032221.6eU384-NP_001027392.1aa86SF	0					0			2	3%	1%	430	90	520	370	320	T	C	A	T	C	A	C	T	C	C	A	T	C	C	G	A	G	A	A	G	T	C	C	G	T	C	C	A	C	T	C	T	C	A								2%	4%	
SUCLA2-NM_003850.3eU375-NP_003841.1aa124SF	0					0			3	8%	3%	570	210	560	420	350	G	C	C	T	C	A	A	A	G	G	A	G	G	A	G	T	G	A	A	G	A	T	A	G	T	T	T	C	T	C	T	C	C	A	G								4%	10%	9%
SUDS3-NM_022491.3eU1643-3'UTR+519	0					0			2	4%	0%	310	70	710	140	360	C	A	G	A	G	G	T	C	C	T	A	G	C	A	G	G	A	G	A	T	G	A	T	G	A	A	T	C	T	C	C	G	T	G	G	C								4%	4%	
SUGP2-NM_001017392.5eU3766-3'UTR+425	4	16%	10%	18%	11%	0			3	64%	3%	270	220	810	210	530	A	T	G	T	G	G	A	A	A	C	G	A	T	C	A	C	A	G	A	T	G	G	T	G	T	T	T	C	T	C	T	G	T	T	G	T	30%	17%	8%	11%				67%	61%	65%
SUGT1-XM_017020365.1eU137-5'UTR-83	0					0			2	24%	11%	340	280	570	460	270	T	T	T	A	G	G	A	C	G	G	A	A	G	C	T	C	G	G	T	T	G	T	G	T	T	T	C	T	C	C	A	G	A	A	G									17%	32%
SUGT1-XM_017020365.1eU561-XP_016875854.1aa115RC	0					0			2	44%	23%	410	190	680	400	290	G	G	A	C	A	A	A	A	A	T	T	A	G	A	T	A	A	G	A	C	G	G	G	G	T	T	T	C	A	T	C	G	T	G	T	T								27%		60%
SUN1-NM_001130965.3eU1871-NP_001124437.1aa608Q*	0					0			3	13%	5%	210	270	780	280	270	A	T	C	G	T	G	A	A	C	A	G	C	G	C	C	T	T	G	A	A	G	C	T	G	T	A	T	T	C	C	A	A	G	A	T								13%	19%	8%
SUN2-NM_001199579.2eU2359-NP_001186508.1aa696Q*	0					0			2	5%	1%	470	230	470	240	410	T	T	C	A	C	T	T	A	C	G	A	T	C	A	G	G	A	C	G	G	C	G	A	G	C	C	T	A	T	T	C	A	G	A	C	G								5%	6%	
SUPV3L1-NM_001301683.2eU553-5'UTR-35	0					0			3	17%	11%	430	250	440	420	190	T	G	C	T	G	A	T	T	A	T	G	G	A	C	T	T	G	A	T	G	C	T	C	G	T	C	T	C	T	T	T	C	C	A	C	C	A								9%	14%	29%
SUPV3L1-NM_001323586.2eU418-5'UTR-78	0					0			2	26%	1%	430	250	440	420	190	T	G	C	T	G	A	T	T	A	T	G	G	A	C	T	T	G	A	T	G	C	T	C	G	T	C	T	C	T	T	T	C	C	A	C	C	A								25%		26%
SUPV3L1-NM_001323587.2eU418-5'UTR-551	0					0			2	37%	26%	430	250	440	420	190	T	G	C	T	G	A	T	T	A	T	G	G	A	C	T	T	G	A	T	G	C	T	C	G	T	C	T	C	T	T	T	C	C	A	C	C	A								19%		56%
SUSD1-NM_001282640.2eU1984-NP_001269569.1aa641SF	0					0			2	14%	10%	360	330	730	330	240	C	A	T	T	T	T	C	T	T	G	T	G	A	T	T	C	T	G	A	A	G	G	C	G	C	T	T	C	C	T	C	C	T	T	C	T								7%	21%	
SUSD5-NM_015551.2eU2409-3'UTR+506	0					0			2	33%	6%	260	220	690	380	410	T	T	T	A	T	A	T	T	T	T	T	A	G	T	A	G	A	G	A	T	G	G	A	G	T	T	T	C	A	C	C	A	T	G	T	T								38%		29%
SV2A-NM_001328674.2eU455-NP_001315603.1aa59PL	0					0			2	9%	0%	290	140	680	280	200	T	T	G	A	G	G	A	G	G	A	G	G	A	T	G	A	T	G	A	T	G	A	T	G	A	C	T	T	C	C	C	T	G	C	T	C								10%	9%	
SVIP-NM_001320340.1eU799-3'UTR+342	0					0			3	16%	5%	300	210	720	140	170	C	T	C	T	A	A	G	A	T	T	A	A	A	A	T	T	C	G	C	A	G	T	T	G	T	C	T	T	T	T	C	A	T	C	C	T								13%	23%	14%
SYAP1-NM_032796.4eU5708-3'UTR+4536	0					0			3	29%	2%	300	200	610	560	390	T	T	G	T	A	T	T	T	T	T	T	G	T	A	G	A	G	A	T	G	G	G	T	G	T	C	T	C	C	C	C	A	T	G	T	T								28%	31%	26%
SYDE2-NM_032184.2eU2520-NP_115560.1aa834LL	0					0			2	20%	3%	460	200	560	240	250	A	A	A	G	A	A	A	A	T	A	T	A	G	G	A	C	T	G	A	T	G	G	T	G	C	C	C	T	T	C	T	G	A	T	A									18%	22%
SYDE2-NM_032184.2eU3370-NP_115560.1aa1117SL	0					0			2	16%	4%	420	110	630	230	200	T	A	A	A	T	G	A	T	G	G	G	A	T	T	A	T	G	A	T	G	T	G	G	A	T	T	A	T	G	A	T	G	T	C	C	T	T	C	A	G	A	A	G		19%	13%	
SYNCRIP-NM_001159673.2eU199-5'UTR-39	0					1	1%		3	4%	1%	480	310	590	150	530	T	T	C	T	T	C	A	A	C	A	G	T	T	T	A	A	A	G	A	C	A	G	T	G	A	T	C	T	C	T	C	T	C	A	T	G						1%	3%	4%	5%
SYNCRIP-NM_001159674.2eU359-NP_001153146.1aa86SF	0					1	2%		3	5%	1%	480	310	590	150	530	T	T	C	T	T	C	A	A	C	A	G	T	T	T	A	A	A	G	A	C	A	G	T	G	A	T	C	T	C	T	C	T	C	A	T	G						2%	6%	4%	5%
SYNJ1-NM_001160302.1eU6402-3'UTR+2389	4	28%	14%	35%	7%	2	6%	2%	3	16%	3%	270	150	780	140	330	A	A	A	A	T	A	C	T	A	T	A	T	T	T	A	T	A	G	A	A	G	T	A	A	T	C	T	T	C	T	C	T	G	T	T	A	30%	31%	43%	8%	4%	8%		13%	17%	17%
SYNRG-NM_001163544.3eU2699-NP_001157016.1aa879PL	0					0			2	5%	1%	350	390	580	340	350	T	A	A	C	G	A	C	C	T	T	T	G	T	A	A	G	T	G	A	A	G	A	T	G	C	T	C	T	T	C	C	A	G	A	G	A								5%	6%	
SYPL1-NM_001381910.1eU1093-3'UTR+188	0					0			3	2%	1%	500	190	650	100	270	T	C	C	T	A	G	A	A	A	G	T	T	A	A	G	A	T	G	T	A	A	T	G	T	A	T	C	T	C	A	C	A	T	G								3%	2%	2%
SZRD1-NM_001114600.3eU175-NP_001108072.1aa53PP	4	3%	2%	4%	2%	0			3	45%	1%	470	220	430	460	340	G	C	C	C	A	T	T	G	T	G	A	T	C	A	G	G	A	C	G	A	T	A	G	C	C	T	T	C	C	C	G	C	G	G	G	5%	5%	2%	1%				45%	46%	46%
SZRD1-NM_001271869.2eU172-NP_001258798.1aa52PP	4	5%	1%	5%	1%	0			3	72%	6%	470	220	430	460	340	G	C	C	C	A	T	T	G	T	G	A	T	T	C	A	G	G	A	C	G	A	T	A	G	C	C	T	T	C	C	C	G	C	G	G	G	6%	4%	6%	4%				66%	79%	72%
SZRD1-NR_073502.2eU125-ncr	4	4%	3%	5%	3%	0			3	47%	4%	470	220	430	460	340	G	C	C	C	A	T	T	G	T	G	A	T	T	C	A	G	G	A	C	G	A	T	A	G	C	C	T	T	C	C	C	G	C	G	G	G	8%	5%	3%	2%				43%	47%	50%
SZRD1-NR_073503.2eU122-ncr	3	4%	2%	4%	2%	0			3	45%	5%	470	220	430	460	340	G	C	C	C	A	T	T	G	T	G	A	T	T	C	A	G	G	A	C	G	A	T	A	G	C	C	T	T	C	C	C	G	C	G	G	G	5%	5%	2%					43%	50%	41%
TAB2-NM_001292034.3eU1991-NP_001278963.1aa533TI	0					0			3	4%	1%	400	0	670	270	210	T	G	A	G	T	A	T	G	G	G	A	T	C	T	G	A	T	G	A	T	G	C	T	G	C	C	T	A	C	A	C	A	A	G								3%	3%	5%
TAB3-NM_152787.5eU6231-3'UTR+3569	0					0			3	41%	2%	250	130	780	210	320	T	T	G	T	A	A	A	G	G	T	T	A	A	T	C	T	G	A	T	G	A	C	G	T	T	T	T	C	A	C	A	T	T	C	A								39%	43%	41%
TACC1-NM_001122824.2eU4620-3'UTR+3085	0					0			2	4%	1%	330	250	570	250	600	C	T	C	T	G	G	A	A	A	T	A	C	C	G	G	G	A	A	G	C	C	C	A	G	T	T	T	C	T	C	A	C	G	T	G								5%	3%	
TACC3-NM_006342.3eU296-NP_006333.1aa58Q*	0					0			3	13%	3%	390	300	780	220	180	A	A	C	C	T	G	G	C	C	A	A	A	G	C	T	A	T	G	A	A	G	G	T	G	A	C	T	T	T	T	C	A	G	A	C	A								14%	10%	14%
TAF15-NM_003487.4eU817-NP_003478.1aa244TI	0					0			3	7%	1%	540	150	650	420	380	T	T	G	T	G	C	A	A	G	G	A	C	T	T	G	G	G	G	A	G	G	G	T	G	T	G	T	C	T	A	C	A	G	A	T	C								9%	6%	7%
TAF15-XM_024450959.1eU761-5'UTR-69	0					0			2	16%	4%	540	150	650	420	380	T	T	G	T	G	C	A	A	G	G	A	C	T	T	G	G	G	A	G	G	G	G	T	G	T	G	T	C	T	A	C	A	G	A	T	C									19%	13%
TAF1D-NM_024116.4eU983-NP_077021.1aa261SF	0					0			3	18%	5%	400	260	680	340	240	A	A	G	A	G	G	A	T	A	T	T	A	C	T	G	A	A	G	A	A	G	C	T	G	C	T	T	T	G	T	C	T	A	A	A	A								20%	13%	22%
TAF1D-NR_146090.2eU983-ncr	0					0			3	22%	4%	400	260	680	340	240	A	A	G	A	G	G	A	T	A	T	T	A	C	T	G	A	A	G	A	A	G	C	T	G	C	T	T	T	G	T	C	T	A	A	A	A								22%	26%	18%
TAF1D-NR_146091.2eU983-ncr	0					0			3	16%	4%	400	260	680	340	240	A	A	G	A	G	G	A	T	A	T	T	A	C	T	G	A	A	G	A	A	G	C	T	G	C	T	T	T	G	T	C	T	A	A	A	A								13%	20%	14%
TAF2-NM_003184.4eU2148-NP_003175.2aa624PL	0					0			2	3%	1%	300	130	570	500	260	T	G	G	A	T	C	T	T	T	C	T	G	C	A	A	T	G	G	A	T	G	C	T	G	A	T	T	C	C	C	T	T	T	G	C								3%	2%	
TAF8-NM_138572.3eU2166-3'UTR+1215	0					0			2	7%	0%	490	250	810	330	350	T	C	T	T	A	C	C	C	C	T	T	C	T	G	G	A	A	G	A	G	A	G	G	T	T	T	C	T	C	T	G	A	C	A									7%	7%
TAF8-NM_138572.3eU3981-3'UTR+3030	0					0			2	10%	2%	350	260	690	460	410	T	T	T	G	T	A	T	T	T	T	T	G	G	T	A	G	A	G	A	C	G	G	G	T	T	C	A	C	C	A	G	G	T	T									9%	12%
TAOK1-NM_020791.4eU7655-3'UTR+3893	0					0			3	20%	2%	340	230	750	220	190	T	G	A	G	A	A	G	G	T	G	G	T	C	A	T	T	A	G	A	T	G	C	A	G	T	C	T	T	T	C	C	T	T	T								19%	19%	23%
TAOK2-NM_001252043.2eU4349-3'UTR+164	0					0			2	9%	2%	440	0	670	390	340	C	C	C	T	T	C	G	G	A	C	C	T	C	T	A	G	A	C	A	G	G	C	A	G	C	C	T	C	C	T	C	A	G	C	T	G								7%		10%
TAP1-NM_000593.6eU897-NP_000584.3aa277Q*	3	1%	0%	1%	0%	0			3	16%	2%	280	400	750	350	410	G	C	T	G	T	C	C	T	G	C	G	C	C	A	G	G	A	G	C	G	G	A	G	T	T	T	T	C	A	A	C	A	G	1%	1%	1%						17%	14%	17%
TARS3-NM_152334.3eU736-NP_689547.2aa217SF	0					0			2	7%	2%	620	270	670	410	80	A	C	C	T	G	G	A	C	C	G	C	C	C	A	T	T	G	G	A	A	G	G	G	A	C	T	C	T	T	C	T	C	T	A	G								6%		9%
TASOR2-NM_001321783.2eU1219-NP_001308712.2aa174SL	0					0			2	9%	2%	250	200	740	80	200	T	G	A	A	A	G	A	T	T	T	G	A	A	A	G	T	T	G	A	A	G	A	G	A	T	G	A	C	A	T	C	T	C	A	A	T	G	A								11%		8%
TASOR2-NM_001321783.2eU1711-NP_001308712.2aa338PL	0					0			2	9%	6%	440	430	540	600	370	A	A	A	T	G	T	T	G	A	A	A	G	C	A	A	A	G	A	A	G	A	G	A	G	T	T	T	T	C	C	A	T	T	G	A								13%	5%	
TBC1D15-NM_001146213.3eU505-NP_001139685.2aa161PL	0					0			3	43%	5%	190	250	660	290	340	T	A	T	T	C	T	G	T	C	T	A	A	A	G	G	A	T	G	A	C	G	T	C	G	T	T	C	T	C	C	T	G	C	T	C								40%	39%	49%
TBL1XR1-NM_001321193.3eU5794-3'UTR+3989	0					0			2	6%	1%	450	70	730	270	420	G	T	A	G	A	A	G	A	G	A	G	A	A	A	G	A	G	G	G	A	A	G	T	G	T	T	C	A	C	T	T	T	T	T								6%		5%
TBL2-NM_001362660.2eU303-NP_001349589.1aa5HY	0					0			2	43%	4%	270	70	810	140	320	C	C	G	C	A	C	A	G	G	A	C	T	C	A	A	C	A	G	A	T	G	T	T	G	A	C	T	T	C	T	C	A	T	C	C	C								46%		40%
TBX18-NM_001080508.3eU1328-NP_001073977.1aa304TI	0					0			3	11%	7%	290	240	780	140	400	A	G	G	C	A	T	T	C	T	C	C	T	T	T	C	C	A	G	A	A	A	C	T	G	C	T	T	C	A	A	C	C	G								5%	10%	19%
TCAF1-NM_001206938.2eU802-NP_001193867.2aa213SF	0					0			3	8%	3%	300	300	690	80	350	C	A	G	T	G	T	T	G	G	T	T	A	G	T	T	G	T	G	A	A	G	A	T	G	A	C	C	T	C	T	C	C	G	A	C	G								8%	6%	12%
TCF12-NM_001306219.3eU1754-3'UTR+51	0					0			3	15%	3%	210	390	770	80	470	T	A	T	C	A	G	T	A	G	G	C	T	A	G	A	T	A	G	A	A	G	G	T	G	A	C	C	T	C	T	C	C	T	C	A	T								14%	18%	14%
TCP1-NM_001008897.2eU1700-NP_001008897.1aa396SF	0					0			3	41%	0%	250	110	640	230	440	A	A	C	A	T	G	G	A	A	G	T	T	A	T	G	A	A	G	A	T	G	C	T	G	T	T	C	A	C	T	C	T	G	G	A	G								41%	41%	42%

TDP1-NM_001008744.2eU647-NP_001008744.1aa199SL	0					0			3	26%	11%	430	160	400	490	390	T	A	T	C	T	C	C	T	T	T	A	T	T	T	G	G	G	A	C	G	C	T	G	T	T	T	C	T	T	C	A	G	C	T	C													22%	38%	18%
TEAD1-NM_021961.6eU8049-3'UTR+6147	0					0			3	7%	2%	410	250	690	370	310	T	T	A	C	T	G	T	G	C	T	T	T	G	T	T	G	A	A	A	G	T	A	G	T	T	T	T	C	T	C	T	C	T	C	A													5%	8%	8%
TENM3-NM_001080477.4eU4697-NP_001073946.1aa1516PL	0					0			3	37%	21%	450	260	590	440	60	A	C	T	C	T	A	T	G	A	A	C	T	T	C	T	A	T	G	A	A	G	T	T	G	C	G	T	C	T	C	C	A	A	C	T	G													25%	25%	62%
TEX10-NM_001161584.2eU1172-NP_001155056.1aa341PL	0					0			2	4%	0%	420	260	580	330	200	T	A	A	T	T	G	A	A	T	G	C	T	G	G	G	T	T	G	A	A	G	C	T	G	T	A	C	C	T	C	C	A	C	A	A	C														4%	4%	
TEX10-NM_001161584.2eU2929-3'UTR+37	0					0			3	40%	9%	490	200	690	250	190	C	A	T	A	G	T	A	C	C	T	C	C	T	G	T	T	T	G	A	A	G	T	T	G	T	T	T	A	T	T	C	A	C	A	T	C													31%	38%	49%
TFAM-NM_001270782.2eU151-NP_001257711.1aa5R*	4	2%	1%	2%	1%	0			3	20%	1%	380	330	640	420	330	G	C	C	T	C	A	T	C	C	A	C	C	G	G	A	G	C	G	A	T	G	G	C	G	T	T	T	C	T	C	C	G	A	A	G	C	3%	2%	2%	1%							19%	22%	20%
TFDP1-NM_007111.5eU710-NP_009042.1aa170YY	0					0			3	16%	2%	450	200	620	340	210	T	G	A	C	C	A	G	A	A	A	A	A	C	A	T	A	A	G	A	C	G	G	C	G	C	G	T	C	T	A	C	G	A	T	G	C													15%	14%	18%
TGFB2-NM_001135599.4eU4581-3'UTR+1886	0					0			3	4%	1%	450	120	800	290	250	T	T	T	G	C	C	A	C	A	T	C	A	T	T	G	C	A	G	A	A	G	A	G	G	T	A	T	C	C	T	C	A	T	G	C	T													4%	5%	5%
TGFBI-NM_000358.3eU1681-NP_000349.1aa538TI	0					0			3	2%	1%	210	170	810	220	380	C	G	G	A	G	A	C	C	C	T	C	A	A	C	C	G	G	G	A	A	G	G	A	G	T	C	T	A	C	A	C	A	G	T	C	T													2%	2%	3%
TGFBR2-NM_001024847.2eU813-NP_001020018.1aa144PL	0					0			3	27%	6%	420	240	590	550	200	A	T	G	A	C	T	T	T	A	T	T	C	T	G	G	A	A	G	A	T	G	C	T	G	C	T	T	C	T	C	C	A	A	A	G	T													34%	23%	24%
TGFBRAP1-NM_001142621.3eU3465-3'UTR+757	0					0			3	13%	6%	190	430	640	340	530	G	A	G	A	A	C	G	C	T	C	C	A	A	G	A	G	A	G	A	G	C	T	G	C	T	C	C	C	C	T	C	T															7%	18%	15%
TGOLN2-NM_001206844.2eU3547-3'UTR+2380	0					0			3	4%	1%	390	190	620	290	230	A	T	T	T	T	G	C	T	T	C	T	C	T	C	T	T	G	G	A	T	T	T	T	G	T	T	T	T	T	T	C	A	G	A	T	C													5%	3%	3%
TGOLN2-NM_001206844.2eU4792-3'UTR+3625	0					0			3	16%	2%	390	270	720	260	250	G	G	A	A	A	G	C	T	T	T	A	T	C	T	G	C	A	T	G	G	T	G	T	C	T	T	T	T	C	A	A	A	G	A													14%	19%	16%
TGOLN2-NM_001206844.2eU5684-3'UTR+4517	2	2%	0%	2%	0%	0			2	1%	0%	510	320	380	330	490	T	T	T	T	C	C	C	A	G	T	T	A	A	T	A	G	A	T	G	G	T	C	A	C	T	G	T	T	T	C	C	A	C	A	A	T	2%	2%									1%	1%	
THAP10-NM_020147.4eU225-NP_064532.1aa22RC	0					0			2	9%	0%	360	340	570	420	180	A	A	C	A	C	C	A	C	C	A	A	G	T	C	T	G	G	G	A	A	G	T	C	G	C	T	G	C	T	T	T																		9%	9%	
THBS1-NM_003246.4eU3640-NP_003237.2aa1154SF	0					0			3	3%	0%	500	70	530	230	390	C	T	G	G	T	G	G	T	A	G	A	C	T	A	G	G	G	T	T	G	T	T	T	G	T	C	T	T	C	T	C	T	C	A	A	G													3%	3%	4%
THBS2-NM_001381939.1eU5190-3'UTR+1700	0					0			3	8%	2%	170	350	650	240	440	T	T	T	A	C	T	T	T	T	T	T	G	C	G	T	G	T	G	G	A	G	C	T	G	T	A	T	T	C	C	C	G	A	G	A	C													8%	10%	6%
THRAP3-NM_001321471.2eU440-NP_001308400.1aa37LL	0					0			2	2%	0%	350	260	680	190	270	T	T	C	G	A	A	G	T	C	T	C	G	G	T	C	C	C	G	A	A	G	C	C	G	A	T	C	T	C	T	C	T	C	G														2%	2%	
THRB-NM_000461.5eU4766-3'UTR+3067	0					0			2	35%	2%	290	280	550	280	400	A	C	T	T	T	G	C	T	C	A	A	T	T	T	A	G	A	C	G	T	G	C	A	G	T	A	T	T	T	C	C	A	G	A	A	A													33%	36%	
THSD1-NM_018676.4eU2552-NP_061146.1aa777PS	0					0			3	65%	5%	420	250	820	300	250	C	A	C	A	A	G	A	G	T	G	T	C	T	C	A	A	G	G	A	A	G	C	A	G	T	C	T	T	C	T	C	C	A	T	A													65%	60%	70%
THUMPD1-NM_017736.5eU1499-3'UTR+358	0					0			3	48%	4%	280	360	750	370	340	G	A	A	G	T	T	T	T	C	A	T	T	C	T	A	A	G	G	A	A	G	G	A	G	T	T	T	T	A	C	A	T	G	C	C													51%	49%	43%
TIFA-NM_052864.3eU1115-3'UTR+277	1	15%		15%		0			3	80%	4%	400	200	860	180	210	A	A	A	G	T	A	T	C	C	T	T	T	G	A	G	A	T	G	A	A	G	T	C	G	T	G	T	T	C	T	C	A	A	A	A	T	15%													80%	76%	84%
TIGAR-NM_020375.3eU2537-3'UTR+1665	3	58%	14%	58%	14%	0			2	9%	4%	340	280	720	280	150	T	C	C	A	T	T	C	C	C	A	C	C	A	T	A	C	T	G	A	A	G	T	C	A	T	C	T	T	T	C	C	A	C	T	T	T	71%	43%	59%								12%	6%	
TIMMDC1-NM_016589.4eU1229-3'UTR+184	0					0			3	13%	2%	270	120	630	120	420	T	T	T	A	A	C	T	A	A	G	A	A	T	G	G	G	C	T	G	T	T	G	T	A	C	T	C	T	C	A	C	T	T	T													12%	12%	15%
TIMP3-NM_000362.5eU1750-3'UTR+817	0					0			3	3%	0%	580	280	420	490	250	T	C	A	G	G	T	G	A	A	A	G	A	C	T	G	A	G	A	T	G	A	A	T	G	T	C	T	T	T	C	C	T	C	T	C	C													3%	3%	2%
TKT-NM_001064.4eU1441-NP_001055.1aa454TI	0					0			2	2%	0%	320	210	620	260	380	C	T	G	T	C	T	T	T	T	A	C	C	C	A	A	G	T	G	A	T	G	G	C	G	T	T	G	C	T	A	C	A	G	A	G	A													2%		1%
TMA16-NM_018352.3eU957-3'UTR+233	0					0			3	8%	2%	310	140	680	210	270	G	A	T	A	G	A	T	G	T	G	A	T	C	T	G	C	A	G	A	A	G	T	T	G	T	T	A	G	T	C	T	T	C	A	T													10%	7%	8%
TMBIM1-NM_001321427.2eU2614-3'UTR+1021	1	2%		2%		0			3	42%	9%	410	240	800	260	280	A	G	G	G	A	G	G	G	T	C	C	T	A	A	G	A	G	G	A	A	G	G	T	G	A	C	T	T	C	T	C	T	C	T	G	T		2%											32%	48%	46%
TMCO1-NM_019026.6eU51-5'UTR-68	0					0			2	5%	2%	250	210	770	330	310	T	G	G	T	G	G	G	A	G	C	T	A	C	G	G	A	G	C	G	T	T	T	C	A	C	G	C	T	T	T	C	A	C														6%	3%	
TMED10-NM_006827.6eU3561-3'UTR+2868	0					0			3	3%	1%	380	430	490	450	220	T	T	T	C	T	T	T	C	C	T	A	T	T	T	C	T	G	A	C	T	G	G	T	G	C	C	T	T	T	C	C	C	C	T	T	T													2%	4%	4%
TMED5-NM_001167830.2eU281-NP_001161302.1aa37TI	0					0			2	2%	0%	290	300	670	100	270	G	C	T	T	C	A	C	A	C	C	T	T	C	C	C	T	C	G	A	T	A	G	C	G	A	C	T	T	C	A	C	T	T	T	A													2%	2%	
TMED5-NM_001167830.2eU458-NP_001161302.1aa96TI	0					0			3	7%	3%	190	200	640	150	510	T	T	G	A	A	C	A	A	A	G	A	A	A	A	T	C	A	G	A	T	G	G	A	G	T	T	C	A	C	A	C	T	G	T	A	G													6%	4%	10%
TMED5-NR_030761.2eU458-ncr	0					0			2	41%	21%	150	200	640	150	510	T	T	G	A	A	C	A	A	A	G	A	A	A	T	C	A	G	A	T	G	G	A	G	T	T	C	A	C	A	C	G	T	G	T	A														26%	56%	
TMED7-NM_181836.6eU2971-3'UTR+2052	0					0			2	5%	2%	510	100	450	390	260	T	A	A	C	T	G	G	T	T	A	C	A	T	T	T	T	G	A	T	G	G	T	T	G	T	C	T	A	T	A	C	T	C	A	A	C													7%		4%
TMEM123-NM_052932.3eU1093-3'UTR+324	0					0			3	6%	0%	280	190	670	240	300	C	A	T	A	T	G	A	C	C	A	G	T	A	A	T	T	G	A	A	G	A	G	A	C	G	T	C	A	T	C	A	C	T	G	A	A	A													5%	6%	6%
TMEM123-NM_052932.3eU816-3'UTR+47	0					0			3	9%	2%	250	170	630	170	210	A	G	G	A	T	G	G	A	A	T	A	C	A	G	A	T	T	G	A	T	G	C	T	G	C	C	C	T	A	T	C	A	A	T	A	A													8%	7%	11%
TMEM126B-NM_001193537.3eU737-NP_001180466.1aa171Q*	0					0			3	8%	1%	400	180	690	340	100	A	G	G	G	T	T	T	T	A	A	T	C	C	A	T	T	G	G	A	T	G	A	C	G	C	T	T	T	G	T	C	A	A	A	C	A													8%	9%	7%
TMEM128-NM_001297551.2eU478-NP_001284480.1aa153Q*	0					0			2	13%	2%	170	130	600	270	330	T	C	G	T	T	T	T	C	A	C	T	C	C	A	T	T	G	T	T	G	T	T	G	T	T	T	A	C	C	C	A	G	T	T													15%		12%
TMEM14C-NM_001165258.2eU820-3'UTR+251	1	1%		1%		0			3	58%	4%	380	130	710	180	210	C	T	T	G	A	T	T	C	T	T	G	T	A	T	A	T	T	G	A	T	G	T	T	G	T	C	T	T	T	T	C	T	T	T	C	T			1%										58%	54%	61%
TMEM170A-NM_001304996.2eU264-NP_001291925.1aa59LF	0					0			2	10%	0%	370	200	660	180	470	G	G	T	G	T	A	T	T	C	C	T	G	T	G	G	G	C	A	C	T	G	G	T	G	T	C	T	T	C	T	C	T	T	C													9%		10%
TMEM178B-NM_001195278.2eU7518-3'UTR+6386	0					0			3	16%	2%	400	200	610	330	120	G	T	C	T	G	T	T	G	T	G	A	G	C	G	T	G	A	C	G	A	A	G	C	C	T	T	T	C	C	T	G	T	G	A													15%	13%	18%
TMEM181-NM_001376817.1eU1939-3'UTR+269	0					0			3	21%	5%	540	300	540	390	270	T	T	T	T	A	C	A	G	A	T	T	T	C	A	G	A	T	G	A	G	C	G	T	G	T	T	T	T	C	A	G	T	G	A													17%	20%	26%
TMEM199-NM_152464.3eU2286-3'UTR+1635	0					0			2	14%	7%	330	310	610	490	430	C	A	G	T	T	C	T	C	A	G	C	A	T	A	T	A	G	A	A	G	G	G	A	G	C	T	C	T	C	T	C	A	T	C	T	G														19%	9%	
TMEM201-NM_001010866.4eU3829-3'UTR+2630	0					0			3	82%	2%	420	180	710	300	170	C	T	A	G	A	T	G	T	C	G	T	G	T	T	T	G	G	A	T	G	C	T	G	T	G	T	T	T	C	T	C	A	A	T	A	A													80%	81%	84%
TMEM237-NM_001044385.3eU1780-3'UTR+450	0					0			3	44%	6%	510	170	540	390	290	G	A	A	T	A	A	A	T	T	G	A	A	A	T	A	T	G	A	A	G	T	T	G	C	T	T	T	T	C	T	G	A	A	A													50%	43%	38%
TMEM245-NM_032012.4eU2686-3'UTR+12	0					0			3	13%	1%	450	100	670	360	230	G	A	A	A	T	C	T	T	C	A	G	T	A	G	G	T	T	G	A	T	G	T	G	G	T	T	C	C	T	C	T	G	C	A	G													14%	12%	13%
TMEM250-NM_001256526.2eU2568-3'UTR+1657	0					0			3	11%	3%	370	110	640	320	410	A	A	T	C	T	T	T	T	G	C	A	C	T	A	A	G	T	C	A	T	G	C	T	G	T	T	C	C	T	C	A	A	A	G	A													8%	14%	13%
TMEM258-NM_014206.4eU97-NP_055021.1aa19PL	0					0			3	2%	1%	320	320	620	280	310	A	T	A	C	C	A	G	C	C	C	A	G	T	G	A	A	C	C	C	A	G	C	T	G	T	C	T	T	C	C	C	C	C	A	T	C													1%	3%	3%
TMEM30A-NM_001143958.2eU2548-3'UTR+1416	0					0			3	4%	1%	360	100	510	340	610	C	A	T	G	T	T	T	G	T	G	A	G	A	G	A	T	G	C	C	T	G	T	T	A	C	T	C	A	G	A	G	T															4%	5%	3%
TMEM33-NM_018126.3eU6095-3'UTR+5295	0					0			3	8%	2%	450	170	510	430	250	A	T	A	G	G	A	A	A	A	A	T	T	A	T	A	G	A	T	G	G	A	T	G	C	T	T	T	G	C	T	G	A	A	A													10%	6%	8%
TMEM39A-NM_018266.3eU576-NP_060736.1aa74LL	0					0			3	9%	3%	390	130	540	400	340	T	C	C	T	G	A	C	T	T	G	C	C	T	G	G	A	T	G	G	G	A	G	C	C	T	A	C	T	C	T	T	G	A													13%	7%	7%
TMEM40-NM_001284406.2eU699-NP_001271335.1aa178HY	0					0			2	13%	4%	240	510	540	270	540	C	T	G	A	A	T	A	T	A	A	A	G	A	A	A	G	A	T	G	A	T	G	A	G	T	T	T	T	T	C	C	A	T	T	T	C														15%	10%	
TMEM41B-NM_015012.4eU2256-3'UTR+1228	0					0			3	17%	6%	350	260	690	460	410	T	T	T	G	T	G	T	T	T	T	A	G	T	A	G	A	G	A	C	G	G	G	G	T	T	C	A	C	C	A	T	G	T	T													15%	12%	23%
TMEM59-NM_001305049.1eU214-5'UTR-210	0					0			2	17%	3%	280	180	540	430	330	C	G	C	C	A	G	C	C	T	A	G	G	A	A	G	A	A	G	T	T	C	G	T	A	G	T	C	C	C	A	G	A	G	G													14%	19%	
TMEM65-NM_194291.3eU2273-3'UTR+1006	4	54%	17%	61%	8%	3	12%	6%	3	30%	12%	230	70	830	180	330	T	T	T	T	T	T	T	T	C	C	C	T	C	C	A	A	A	G	A	T	G	T	C	A	T	C	T	T	C	T	C	A	T	C	T	G	61%	53%	70%	31%	6%	13%	18%	21%	43%	26%	
TMEM65-NM_194291.3eU3167-3'UTR+1900	0					0			3	36%	7%	290	90	490	330	320	C	C	C	T	A	A	C	T	T	G	T	G	T	A	T	T	G	A	T	G	G	C	A	G	T	C	C	A	C	T	C	T	G	T	T	T													42%	36%	29%
TMEM69-NM_016486.4eU305-NP_057570.2aa39Q*	0					0			3	7%	3%	370	210	620	350	130	A	C	A	G	A	T	A	T	A	C	T	T	T	C	T	C	T	C	A	A	G	A	T	G	T	C	T	C	T	C	C	A	G	C	A	A													9%	4%	7%
TMEM87B-NM_001329914.2eU1909-NP_001316843.1aa529PL	0					0			3	13%	3%	260	310	580	340	290	T	T	C	C	C	T	C	T	T	C	A	T	T	C	A	C	A	G	A	T	G	C	T	C	T	T	C	C	A	G	T	G	T													16%	11%	12%
TMPO-NM_001032283.3eU4062-3'UTR+2419	0					0			2	3%	0%	280	180	700	180	170	T	T	C	C	T	G	A	T	T	A	A	A	T	T	G	T	A	G	A	T	G	T	A	G	A	C	T	T	T	A	C	A	A	T	A	T													3%	3%	
TNC-NM_002160.4eU5468-NP_002151.2aa1719SL	4	34%	8%	38%	4%	3	3%	1%	3	13%	1%	280	210	780	330	310	C	C	A	T	G	G	G	C	T	C	C	C	C	A	A	A	G	G	A	A	G	T	C	A	T	T	T	T	C	T	C	A	G	A	C	A	42%	38%	35%	23%	3%	3%	4%	13%	13%	12%	
TNC-XM_005251975.4eU3557-XP_005252032.1aa1082SL	4	36%	12%	42%	2%	0			2	25%	4%	280	210	780	330	310	C	C	A	T	G	G	G	C	T	C	C	C	A	A	A	G	G	A	A	G	T	C	A	T	T	T	C	T	C	A	G	A	C	A	44%	42%	41%	18%								27%	22%	
TNFRSF10B-NM_003842.5eU3869-3'UTR+2409	0					0			3	7%	3%	240	270	650	160	320	A	T	A	G	T	G	T	C	A	C	T	C	G	T	G	G	T	T	G	T	G	T	G	T	C	C	T	T	T	C	A	T	G	C	T													5%	10%	5%
TNIP2-NM_001161527.2eU899-NP_001154999.1aa156RW	0					0			2	3%	0%	150	420	640	370	350	G	A	G	C	C	C	G	A	G	C	T	G	A	T	G	A	G	G	A	G	G	A	G	A	T	C	T	C	C	C	G	G	C	T	C													3%		4%
TNKS2-NM_025235.4eU2264-NP_079511.1aa667PS	0					0			3	25%	4%	270	250	860	180	350	T	G	T	T	T	A	G	C	C	A	G	A	G	T	G	A	A	G	A	A	G	T	T	G	C	T	T	C	T	C	C	T	G	A	T													22%	26%	29%
TNPO1-NM_001364292.3eU4828-3'UTR+1852	0					0			2	3%	1%	320	320	490	330	370	C	T	G	C	T	G	G	T	C	A	G	A	G	A	T	G	A	A	G	C	C	A	C	G	C	C	T	T	C	C	A	T	T	T	T														3%	4%	
TNRC6B-NM_001024843.2eU15190-3'UTR+11815	0					0			3	26%	4%	320	320	600	300	210	T	T	T	T	T	T	T	T	C	T	T	A	T	A	C	T	T	G	A	A	G	T	T	G	C	T	T	T	A	C	G	A	T	A	T													24%	23%	30%
TOLLIP-NM_001318512.2eU1075-3'UTR+266	0					0			3	9%	4%	410	260	440	520	310	G	C	T	C	T	C	C	T	G	T	C	C	C	T	G	G	G	A	C	G	T	G	C	G	T	C	T	C	T	C	C	T	T	C	T	C													9%	13%	5%
TOMM20-NM_014765.3eU218-NP_055580.1aa32PP	0					0			3	2%	1%	320	120	650	290	290	C	T	A	C	T	T	C	G	A	C	C	G	C	A	A	A	A	G	A	C	G	A	A	G	T	G	A	C	C	C	C	A	A	C	T	T													1%	3%	2%
TOMM34-NM_006809.5eU223-NP_006800.2aa53LL	0					0			3	26%	2%	590	200	560	390	330	T	T	C	T	T	C	A	G	A	C	C	C	A	G	A	A	G	A	A	G	A	A	A	G	T	G	T	T	C	T	C	A	C	T													25%	25%	26%
TOMM70-NM_014820.5eU903-NP_055635.3aa255Q*	4	12%	5%	14%	3%	0			2	2%	0%	220	0	690	250	220	A	A	G	A	A	T	C	G	T	G	A	A	C	C	T	C	T	G	A	T	G	C	C	A	T	C	T	C	C	A	C	A	G	T	T	T	12%	18%	13%	5%							2%	2%	
TOMM7-NM_019059.5eU299-3'UTR+61	0					0			3	8%	1%	430	80	710	220	270	A	T	G	G	A	A	G	C	A	G	C	A	T	G	G	A	A	G	A	T	G	T	G	T	G	C	T	C	T	G	G	C	T													6%	8%	8%
TOP2A-NM_001067.4eU4115-NP_001058.2aa1337SL	0					0			3	7%	2%	360	130	760	210	280	C	A	A	T	G	G	A	T	T	T	G	G	A	T	T	C	A	G	A	T	G	A	A	G	A	T	T	T	C	T	C	A	G	A	T	T													10%	7%	6%
TOP3A-NM_001320759.2eU2320-NP_001307688.1aa631PP	0					0			2	3%	0%	390	240	600	340	300	A	A	A	G	T	T	A	A	A	G	C	T	T	A	A	G	C	G	G	T	A	G	C	C	T	T	C	C	C	C	G	A	C													2%		3%
TOR1AIP2-NM_001199260.2eU1655-NP_001186189.1aa282Q*	0					0			3	12%	2%	460	230	450	630	330	T	T	C	C	T	G	T	G	G	C	A	G	A	G	A	G	G	A	C	G	G	A	A	G	T	T	C	T	C	C	A	G	A	A	G													13%	14%	10%
TOR1AIP2-NM_001349931.2eU2922-3'UTR+1737	0					0			3	17%	4%	350	260	690	460	410	T	T	T	G	T	A	T	T	T	T	T	A	G	T	A	G	A	G	A	T	G	G	G	T	T	C	A	C	C	A	T	T	G	T													21%	14%	15%
TOR1A-NM_000113.3eU995-NP_000104.1aa315SL	0					1	4%		3	4%	3%	480	260	730	380	390	C	A	T	T	T	T	T	C	C	C	C	A	A	A	G	A	G	G	A	G	A	G	A	T	T	T	C	T	C	A	G	A	T	A					4%								2%	3%	7%
TOR2A-NM_001085347.3eU1395-3'UTR+405	0					0			2	12%	1%	270	240	770	150	390	G	T	G	T	C	C	A	T	A	T	C	A	A	G	C	C	A	G	G	T	G	G	A	G	C	C	T	T	C	T	A	G	T	T														11%	13%	
TPCN1-NM_001143819.3eU2354-NP_001137291.1aa730SF	0					0			3	7%	2%	450	170	770	230	290	A	C	T	G	G	T	A	C	A	T	C	A	T	C	A	T	G	G	A	A	G	G	C	G	T	C	A	C	C	T	C	T	C	A	G	A													5%	7%	8%
TPCN1-NM_001143819.3eU2857-3'UTR+25	0					0			2	10%	6%	430	230	650	450	110	A	C	C	T	A	G	C	C	C	A	G	C	G	C	C	C	G	A	A	A	G	C	C	G	T	C	T	C	T	T	C	T	A	T	G	C														6%	14%
TPGS2-NM_001271951.2eU934-NP_001258880.1aa233HH	0					0			2	6%	3%	450	190	680	140	400	T	A	T	C	A	A	A	A	T	G	A	A	T	A	G	A	A	G	A	A	A	A	T	G	T	G	T	T	C	A	C	T	G	G	A	A													5%		8%
TPM3-NM_001043351.2eU1243-3'UTR+397	0					0			3	7%	0%	440	300	780	260	180	T	C	C	C	T	T	T	C	T	C	A	C	T	T	T	T	G	G	A	A	G	G	T	G	A	C	T	T	T	C	A	C	C	T	T													7%	7%	7%
TPM3-NM_001043351.2eU1726-3'UTR+880	0					0			3	10%	1%	290	260	640	240	260	T	A	C	C	C	T	T	T	C	T	G	G	G	T	T	G	A	A	C	C	T	G	C	T	G	T	C	T	C	T	G	G	A	T													10%	10%	11%
TPM3-NM_001043351.2eU965-3'UTR+119	3	1%	0%	1%	0%	0			3	27%	2%	390	270	590	550	420	G	G	C	T	G	A	T	C	T	T	T	A	A	C	T	G	G	A	A	G	G	C	T	G	C	T	T	T	C	T	C	C	T	T	T	C	1%	2%		1%							26%	27%	29%

| | | |

UBB-NM_001281716.2eU605-NP_001268645.1aa114PL	4	21%	6%	24%	3%	3	1%	0%	3	4%	0%	280	450	620	330	340	C C A A G A T C C A G G A T A A A G A A G G C A T C C C T C C C G A C C	27%	25%	21%	13%	1%	2%	1%	4%	4%	4%
UBB-NM_001281716.2eU606-NP_001268645.1aa114PP	4	1%	1%	2%	0%	0			3	3%	0%	230	280	450	620	330	C A A G A T C C A G G A T A A A G A A G C A T C C C T C C C G A C C A	2%	2%	1%	1%				3%	2%	3%
UBB-NM_001281716.2eU691-NP_001268645.1aa143LL	0					0			3	1%	0%	190	240	730	180	330	T C T G A C T A C A A C A T C C A G A A G G A G T C G A C C C T G C A C								2%	1%	2%
UBB-NM_001281716.2eU833-NP_001268645.1aa190PL	4	46%	13%	52%	3%	3	4%	0%	3	12%	1%	210	390	690	290	440	C C A A G A T C C A A G A T A A A G A A G G C A T C C C C C C G A C C	55%	53%	49%	27%	4%	4%	4%	11%	12%	12%
UBB-NM_001281717.1eU790-NP_001268646.1aa190PL	4	51%	23%	62%	5%	0			2	16%	1%	210	390	690	290	440	C C A A G A T C C A A G A T A A A G A A G G C A T C C C C C C G A C C	57%	67%	63%	18%					17%	16%
UBB-NM_001281720.2eU230-NP_001268649.1aa67LL	0					0			3	9%	2%	190	240	730	180	330	T C T G A C T A C A A C A T C C A G A A G G A G T C G A C C C T G C A C								8%	11%	7%
UBB-NM_001281720.2eU372-NP_001268649.1aa114PL	4	28%	7%	31%	4%	1	3%		3	6%	1%	280	450	620	330	340	C C A A G A T C C A G G A T A A A G A A G G C A T C C C T C C C G A C C	36%	29%	29%	18%	3%			5%	7%	5%
UBB-NM_018955.4eU213-NP_061828.1aa38PL	4	27%	6%	30%	0%	3	1%	0%	3	3%	0%	210	450	600	440	420	C C A A G A T C C A G G A T A A G G A A G G C A T T C C C C C C G A C C	30%	30%	31%	18%	1%	1%	1%	4%	3%	4%
UBB-NM_018955.4eU299-NP_061828.1aa67LL	0					0			3	3%	1%	190	240	730	180	330	T C T G A C T A C A A C A T C C A G A A G G A G T C G A C C C T G C A C								4%	2%	2%
UBC-NM_021009.7eU1092-NP_066289.3aa342PL	4	5%	1%	6%	1%	0			3	1%	0%	320	350	580	410	260	C A A A G A T C C A A G A C A A G G A A G G C A T C C C T C C T G A C C	6%	6%	5%	4%				1%	1%	1%
UBC-NM_021009.7eU1320-NP_066289.3aa418PL	4	5%	1%	5%	0%	3	0%	0%	3	1%	0%	320	350	580	410	260	C A A A G A T C C A A G A C A A G G A A G G C A T C C C T C C T G A C C	6%	5%	5%	3%	0%	1%	0%	1%	1%	1%
UBC-NM_021009.7eU1548-NP_066289.3aa494PL	4	4%	1%	4%	1%	2	0%	0%	3	1%	0%	320	350	580	410	260	C A A A G A T C C A A G A C A A G G A A G G C A T C C C T C C T G A C C	5%	4%	4%	3%	0%	0%		1%	1%	1%
UBC-NM_021009.7eU1776-NP_066289.3aa570PL	4	4%	1%	4%	0%	0			3	1%	0%	320	350	580	410	260	C A A A G A T C C A A G A C A A G G A A G G C A T C C C T C C T G A C C	5%	4%	4%	2%				1%	1%	1%
UBC-NM_021009.7eU180-NP_066289.3aa38PL	4	17%	3%	19%	1%	3	1%	0%	3	3%	0%	320	350	580	410	260	C A A A G A T C C A A G A T A A G G A A G G C A T C C C T C C T G A C C	19%	19%	18%	12%	1%	1%	1%	2%	3%	3%
UBC-NM_021009.7eU2004-NP_066289.3aa646PL	4	4%	1%	4%	0%	0			3	0%	0%	320	350	580	410	260	C A A A G A T C C A A G A T A A G G A A G G C A T C C C T C C T G A T C	4%	4%	4%	2%				0%	0%	1%
UBC-NM_021009.7eU494-NP_066289.3aa143LL	0					2	1%	0%	3	3%	0%	330	280	710	200	330	T C T G A C T A C A A C A T C C A G A A A G A G T C T A C C C T G C A C						1%	1%	3%	3%	3%
UBC-NM_021009.7eU864-NP_066289.3aa266PL	4	5%	1%	5%	0%	0			3	0%	0%	320	410	530	480	320	C A A A G A T C C A A G A C A A G G A A G G C A T T C C T C C T G A C C	5%	5%	5%	3%				0%	0%	0%
UBC-NM_021009.7eU950-NP_066289.3aa295LL	0					0			3	3%	1%	330	280	710	200	330	T C T G A C T A C A A C A T C C A G A A A G A G T C T A C C C T G C A C								3%	2%	3%
UBE2D3-NM_003340.6eU224-5'UTR-263	0					0			3	10%	2%	260	480	610	380	320	T C C G A T C T G T T T A G T A A G A A G G T G C T G T T C C G A G A A								9%	9%	12%
UBE2E3-NM_001278554.2eU1115-3'UTR+46	4	10%	4%	12%	2%	0			3	5%	0%	330	240	910	140	370	T G C A G T G T G A A G G A G C A G A A G G C A T C T T C T C A C T G T	13%	10%	14%	5%				5%	5%	6%
UBE2G2-NM_001202489.2eU2585-3'UTR+2097	0					0			3	17%	7%	290	210	730	130	450	T A T T T G C A G G C A A A T G A G A T G G A G C C C T C T C T G T A A								10%	18%	24%
UBE2H-NM_001202498.2eU1377-3'UTR+799	0					0			2	3%	1%	590	60	610	410	300	A G G A G A A A A G T G A C T G G G A C G A T G C T T C C T C T C A T C								2%		3%
UBE2H-NM_001202498.2eU2554-3'UTR+1976	0					0			3	5%	1%	270	70	750	300	270	A C T T C A C T C T T A C C T A G C A C G C T G T C T T C T C A T T G C								6%	5%	3%
UBE2I-NM_003345.5eU472-NP_003336.1aa108TI	0					0			3	5%	2%	230	240	410	340	480	A G G A G G A C A A G G A C T G G A G G C C A G C C A T C A C A A T C A								4%	7%	6%
UBE2K-NM_001111112.2eU2521-3'UTR+1855	2	6%	2%	6%	2%	0			3	9%	4%	290	280	570	560	270	G A T T G T G T G A A A A T G T G G A T G G T T T T T C T C C A G T G T		5%	7%					12%	5%	9%
UBE2L6-NM_004223.5eU119-NP_004214.1aa20PS	0					0			3	10%	6%	340	300	700	360	180	G A G C T G G A G G A T C T T C A G A A G A A G C C T C C C C C A T A C								8%	17%	6%
UBE2Q1-NM_017582.7eU669-NP_060052.3aa187SL	0					0			3	10%	2%	560	140	730	370	70	C A G A G C A G T G C A C A C A G G A A G A C G T G T C T T C A G A A G								7%	11%	11%
UBE2V2-NM_003350.3eU38-NP_003341.1aa5TI	0					0			3	8%	1%	390	80	570	580	340	T C G G G C T G C A G G A G A A G A T G G C G G T C T C C A C A G G A G								8%	8%	7%
UBLCP1-NM_145049.5eU104-5'UTR-15	0					0			2	10%	5%	410	180	620	530	380	A T T T T T T T T T C T G A A G G A A A G C T G C T T C C T C A T A T G								6%	13%	
UBN2-NM_173569.4eU3358-NP_775840.3aa1037PL	0					0			2	16%	3%	390	160	510	610	240	T C A A A T C T C C C T T C T C G A T G G C T G C C T C C C C A A A A C								14%	19%	
UBOX5-NM_001267584.2eU131-5'UTR-12	4	34%	14%	39%	10%	1	8%		2	20%	7%	210	200	720	160	340	G C T G C T T C T G A T G C T T G G A A G A T A T C C T C T C A G C C A	38%	50%	31%	17%	8%				25%	15%
UBOX5-NM_001267584.2eU4210-3'UTR+2530	0					0			2	28%	7%	530	250	800	380	150	A A G A C T T C C C C C A A A A G G A A G T G G T C T T T T C A C T A C								23%		33%
UBQLN2-NM_013444.4eU2281-3'UTR+159	0					0			2	11%	3%	270	370	620	330	300	A A T A T G A T G C A T T T T A A G A T G G A G T C C C T C C C T C T									9%	13%
UBR3-NM_172070.4eU2354-NP_742067.3aa767TI	0					0			3	12%	4%	260	410	700	240	380	A T G A G A G G T C G A T G T T A G A A G G C G C T C T T A C A T T T C								7%	13%	15%
UBR5-NM_001282873.2eU8250-NP_001269802.1aa2595SL	0					0			3	7%	1%	270	130	780	250	330	C T C A G A G T T C A G A T G C T G A T G C T G T T T T C T C A G C A A								5%	8%	7%
UCHL1-NM_004181.5eU593-NP_004172.2aa182PS	0					0			3	22%	2%	540	310	400	400	260	C T C T A T G A A C T T G A T G G A C G A A T G C C T T T T C C G G T G								21%	21%	24%
UCHL5-NM_001199261.3eU2745-3'UTR+1658	0					0			2	20%	9%	500	340	550	270	480	A A A C A A T T C A A C A G A G A A G G A A A G T C T T T T C A A C A A								13%	26%	
UFD1-NM_001362910.2eU1247-NP_001349839.1aa289SF	0					0			2	6%	2%	310	130	590	220	400	A T G A A G C T G G A G G C A G A T T C G T C G C T T T C T C T G G A G									7%	4%
UHMK1-NM_001184763.1eU7901-3'UTR+6786	4	18%	6%	21%	2%	2	4%	1%	2	2%	0%	280	300	700	330	450	A T G T G T G T C A G T A C C A A A A A G T T A T T T T C T C A A A T C	23%	20%	20%	9%	3%	5%		2%	2%	
UMPS-NM_000373.4eU400-NP_000364.1aa127TI	0					0			2	6%	2%	190	360	660	150	420	A A A C C T G T T T A A T C A T T G A A G A T G T T G T C A C C A G T G								4%		8%
UQCC1-NM_018244.5eU291-NP_060714.3aa94TI	0					0			3	19%	3%	260	270	640	340	430	A G C C T G T T G A G G A G A A G G T T G G T G C T T T C A C A A A G A								21%	20%	16%
UQCRFS1-NM_006003.3eU981-3'UTR+123	0					0			2	3%	2%	370	180	670	180	210	T G A A A T A T G T A A G A A T T G A T G A T G T A T T T G C A A A C A								1%	4%	
URGCP-NM_001204871.2eU545-3'UTR+191	0					0			3	3%	1%	370	80	690	290	280	T G T G C C G T G G T C C T G A G G C A G T T G T C T C C A C A C A A G								4%	4%	2%
USO1-NM_001290049.2eU381-NP_001276978.1aa46LL	0					0			2	8%	2%	380	170	500	170	360	G G A T G A T C G A A G A A A T G C T G T T C G T G C T C T C A A A T C									9%	6%
USP19-NM_001199160.2eU647-NP_001186089.1aa148TI	0					0			3	32%	5%	300	130	720	300	390	T G C A G C T G G A G G A T G T A G A T G C T G C T T T C A C A G A T A								37%	34%	26%
USP28-NM_001301029.2eU4005-3'UTR+1007	0					0			3	19%	6%	400	260	690	460	410	T T T G T A T T T T T A A T A G A G A T G G G G T T T C A C C A T A T T								25%	14%	16%
USP33-NM_001377432.1eU2014-NP_001364361.1aa556SL	0					0			3	8%	2%	250	250	460	360	540	T C A T G G A A T A T G T G A A G A G G G T T T G T T G T C T C A T G T G								6%	10%	9%
USP36-NM_001321291.2eU2327-NP_001308220.1aa580SF	0					0			2	4%	1%	250	170	710	160	460	G C T C C T G G G A C A G C A G G G A T G T T G T C C T C T C T A C C T									5%	4%
USP38-NM_001290325.1eU2975-NP_001277254.1aa814TI	0					0			3	47%	3%	300	70	720	140	330	C A G A A A G T T G G T C T G T A G A T G T T G A C T T C A C T G A T C								50%	46%	45%
USP40-NM_001365479.2eU4758-3'UTR+929	1	7%		7%		0			2	13%	8%	440	530	690	350	520	A A G A A A A A T G T A A A C T A A G G A A G G G T T T C C C A C T T A	7%							7%		18%
USP40-NM_001365479.2eU4873-3'UTR+1044	0					0			2	8%	2%	320	390	450	530	180	A T T G A T T T G G G A C A T A G A C G G T T G A C T T T C C C A G A C								9%		6%
USP46-NM_001134223.2eU501-NP_001127695.1aa91PL	0					0			3	19%	6%	210	230	720	260	330	C C A C A C A G A A G A A G A A G G T T G G C G T C A T C C C A C C A A								20%	24%	13%
USP47-NM_001282659.2eU3594-NP_001269588.1aa1127AV	0					0			2	3%	1%	450	180	660	220	250	C A T G C A A G T T T C T G C T A G A T G C T G T G T T T G C T T A A A G									2%	4%
USP49-NM_001286554.2eU4216-3'UTR+1913	0					0			2	13%	3%	210	250	750	120	420	G C C A G A G G C T C T G A T G T G A A G C T G T A C T C T C A A G A T								12%	15%	
USP5-NM_001098536.2eU128-NP_001092006.1aa33SF	0					0			3	2%	0%	390	260	710	280	260	A C C G G G T C C A C A A A G A C G A G T G C G C C T T C T C C T T C G								2%	1%	2%
USP9X-NM_001039590.3eU3583-NP_001034679.2aa920LL	0					0			3	11%	1%	310	120	780	180	270	T A C A A T T G G T T C A G T A C G A C G A T G T A T T C T C A A T C G								11%	11%	9%
UTP11-NM_016037.4eU341-NP_057121.2aa91PL	0					0			2	5%	1%	290	150	650	370	210	T T A T T A A G G A G A C T A A G G A A G A A G T A A C C C C A G A A C								5%	6%	
UTP14A-NM_001166221.2eU1841-NP_001159693.1aa598LL	0					0			3	8%	2%	270	210	800	290	320	G C C C A G T G C C A A G A A A A G A C G C C G G T T C T C A T T A A								10%	8%	6%
UVRAG-NM_001386671.1eU782-NP_001373600.1aa195SF	0					0			2	10%	1%	350	70	700	140	270	A C T G T G T T C G C A A T T C T T A C G A T G T C T T C T C T T T G C									9%	11%
VAMP8-NM_003761.5eU360-NP_003752.2aa100SF	0					0			2	3%	1%	360	200	600	230	320	T C A T T G T G C T C T T T G C C A C T G G T G C C T T C T C T T A A G								2%	4%	
VAPA-NM_003574.6eU345-NP_003565.4aa35TI	0					0			3	3%	0%	320	110	630	190	240	T C A A A G G C C C C T T C A C A G A T G T A G T C A C T A C A A A T C								3%	3%	3%
VAPB-NM_001195677.2eU4505-3'UTR+3974	0					0			3	12%	3%	400	290	900	140	450	A T G T T T G C T G T T G T T G A G A A G A G A T G T T C T C A A A G A								13%	9%	15%
VARS1-NM_006295.3eU757-NP_006286.1aa173R*	0					0			2	3%	1%	280	250	530	330	100	G C G G C T G T C A C A G C C T T G C T G C T G C C T T T C C G A T A C								3%	4%	
VCAN-NM_001164097.2eU5792-NP_001157569.1aa1836Q*	0					0			2	39%	8%	320	150	870	140	350	G C A G T T T C A A C A T T T G C G A A G T T G T C T T C T C A G A C A									33%	45%
VEZT-NM_001352088.2eU1698-NP_001339017.1aa552LL	0					0			3	11%	3%	350	130	700	230	100	T G T A C A G T A G T A C C T T T G A A G C A G C C T A C T C T A C A C								9%	15%	10%
VIPAS39-NM_001193314.2eU2537-3'UTR+548	0					0			3	31%	3%	550	200	660	280	250	A T G C C A C A C A T G G C C T A G A C G T T G T G T T T C C T C A G C								30%	28%	34%
VIPAS39-NM_001193314.2eU2539-3'UTR+550	0					0			3	11%	2%	280	230	550	200	660	G C C A C A C A T G G C C T A G A C G T T G T G T T T C C T C A G C C A								9%	13%	11%
VKORC1L1-NM_001284342.3eU2495-3'UTR+1663	0					0			2	3%	0%	170	330	530	430	490	G T C A A G A T T T C A T C A A G A C T T G T G T T T T C C C A T G A A								3%	3%	
VKORC1L1-NM_001284342.3eU4978-3'UTR+4146	2	7%	1%	6%		0			3	76%	12%	230	270	710	260	340	T G T A G A A G T T A C C T G T G G A A G T T G T G C T C C C A T T A T		6%		7%				63%	85%	82%
VKORC1L1-NM_001284342.3eU882-3'UTR+50	0					0			3	4%	1%	320	380	730	210	370	A A A A A T C C G G T A A A T T A G A A G G G G C C C T C G C T A T T T								3%	3%	6%
VKORC1-NM_001311311.2eU366-NP_001298240.1aa100HY	0					0			3	48%	7%	260	160	740	310	410	C T A C A G C T A T T G T T A G A G A T G G T G T C T C G C C A T G T T								50%	40%	55%
VPS18-NM_020857.3eU3670-3'UTR+429	0					0			3	6%	3%	390	150	800	190	220	C C A G C T C T T C T C T C T C A G A A G A A G C C T T C T C T T C C T								3%	8%	5%
WAPL-NM_001318328.2eU1644-NP_001305257.1aa398LL	0					0			2	3%	0%	430	150	590	410	330	T C C T G C A G A T T T G G G A G A A G C T G G T C G T C T C A G A A A								3%	3%	
WAPL-NM_001318328.2eU3890-NP_001305257.1aa1147SL	0					0			3	6%	3%	340	350	820	180	200	T G C G G G A A T A T C T G C C A G A A G G A G A C T T T T C A A T A A								7%	3%	9%
WAPL-NM_001318328.2eU524-NP_001305257.1aa25SF	0					0			3	23%	4%	430	280	710	180	110	A T G G C A G T T C A A A A T T C G A T G A A G T C T T T T C C A A C A								27%	18%	24%
WARS2-NM_001378231.1eU125-NP_001365160.1aa39SF	0					0			3	7%	3%	420	360	530	430	350	T C C A G A A A G A C A G C A A G A A G C G A G T A T T T T C C G G C A								9%	7%	4%
WASF2-NM_001201404.3eU1176-3'UTR+105	0					0			3	35%	3%	450	80	740	210	240	T T G A G T A C A G T G A C T C A G A A G A T G A C T C C T C T G A A T								32%	35%	37%
WASF2-NM_006990.5eU1691-NP_008921.1aa489SF	0					0			3	44%	3%	450	80	740	210	240	T T G A G T A C A G T G A C T C A G A A G A T G A C T C C T C T G A A T								40%	46%	46%
WASHC2A-NM_001005751.3eU3951-NP_001005751.1aa1300SF	4	15%	4%	17%	3%	0			2	2%	0%	270	170	740	220	250	T A T T T G A T G A T G A T A T G G A T G A C A T C T T C T C C T C T G	16%	14%	20%	10%					2%	2%
WASHC2C-NM_001169106.2eU3765-NP_001162577.1aa1238SF	4	15%	4%	16%	3%	0			2	3%	0%	270	220	740	220	250	T A T T T G A T G A T G A T A T G G A T G A C A T C T T C T C A C T G	18%	13%	18%	10%				3%	3%	
WASHC4-NM_001293640.2eU1914-NP_001280569.1aa615PL	0					0			3	8%	1%	170	350	670	280	360	G T T T T T T A T A C T G G C A T C G A G C T G T C T T C C C A A T T T								9%	9%	6%
WASHC4-NM_001293640.2eU5534-3'UTR+1939	0					0			2	6%	1%	420	190	600	330	160	G T T A A T A T G T A C A T T T G G A T G A T G A T T T T C T T G A T								6%		5%
WASHC5-NM_001330609.2eU1365-NP_001317538.1aa310SL	0					0			3	3%	1%	340	130	680	140	170	A G C G G A T G A C T G A G C T T G C T G A T G T C T T T T C A G G A G								3%	4%	3%

WBP1-NM_012477.4eU698-NP_036609.1aa178SF	3	5%	2%	5%	2%	0	3	43%	12%	470	330	750	360	370	T T G A A G G A A C A A A T G T G G A A G G T G T T T C C T C C C A C C	7%	4%	4%	39%	33%	57%
WBP4-NM_007187.5eU1226-NP_009118.1aa354PL	0					0	3	2%	0%	280	160	690	250	330	C T C T T G G A G T T A T G G C A G A T G G A G T G G C C C C A G T C T				2%	1%	2%
WDHD1-NM_001008396.3eU1222-NP_001008397.1aa286HH	0					0	3	8%	1%	330	160	600	520	310	G G A G G A A G A T G G T C A A G A A G G C A G C A T T C A C A A T C T				8%	10%	7%
WDR11-NM_018117.12eU4125-3'UTR+391	0					0	3	5%	1%	320	340	660	250	420	A T A G T A A A T G A A A T T T G T G A G A T G T T T T C T C A A A T A				4%	6%	5%
WDR12-NM_001371664.1eU866-NP_001358593.1aa124SL	0					0	2	5%	1%	400	60	720	490	310	C C C T C T C T G G C C A C A T G G A G G C A G T T T C C T C A G T T C				4%		6%
WDR19-NM_001317924.2eU3793-NP_001304853.1aa1134HY	0					0	3	8%	1%	340	90	720	290	360	A T G T T G A A A G A T G A C T G G A C G G T G T G T C C A C A T T G T				8%	8%	7%
WDR26-NM_001115113.3eU1056-NP_001108585.2aa122Q*	0					0	2	5%	1%	280	370	690	460	350	A G C A G C C T C A A G A A G A A G A G C G G C T C T C C C A G T C A					5%	4%
WDR33-NM_001006622.3eU1003-NP_001006623.1aa274RW	0					0	2	6%	5%	190	450	450	250	700	T G C T G G C A C C T T T C T G A A G T A G T G T T G T C C C G G T A T					9%	3%
WDR33-NM_018383.5eU5611-3'UTR+1417	0					0	2	30%	4%	360	220	690	380	410	T G T G T G T T T T T T G T A G A G A T G G A G T T T C A C C A C T T T				27%		33%
WDR3-NM_006784.3eU2647-NP_006775.1aa857FF	0					0	3	5%	0%	430	150	550	300	140	T G A T G T T G A A C T T A T A T G C C G G T G C C T C T T C T T C C T				5%	5%	4%
WDR4-NM_001260474.2eU152-NP_001247403.1aa36FF	0					0	2	5%	2%	550	140	390	510	120	C A T A G C A A G C A G T G A T G A T G A C A G C C T C T T C A T C T A				3%	6%	
WDR55-NM_017706.5eU2055-3'UTR+894	0					0	3	10%	3%	420	320	690	500	410	T T T G T A T T T T C A G T A G A G A C G G G G T T T C T C C A T G C T				7%	9%	13%
WDR5-NM_001384409.1eU1040-NP_001371338.1aa306SL	0					0	3	44%	4%	290	120	790	80	330	A A C T A C A A G G C C A C A C A G A T G T C G T G A T C T C A A C A G				39%	47%	46%
WDR75-NM_001303096.2eU2126-NP_001290025.1aa627PP	4	5%	1%	5%	1%	0	3	49%	1%	560	220	620	490	290	C A A A C A G C T G C T A G C A G A A G A A A G T C T T C C C A C A A C	5%	6%	4%	4%	48%	49%	51%
WDR76-NM_001167941.2eU1142-NP_001161413.1aa343SS	0					0	3	21%	2%	460	340	640	440	220	G G T G T A T A G A A A T G A A A G A A G T A G C T T T C C C T C C T T				19%	20%	23%
WDR76-NM_001167941.2eU1174-NP_001161413.1aa354TI	0					0	3	7%	2%	380	80	700	260	290	C C T T C G A C T T C T T G G C A G A A G A T G C C T C C A C T T T A A				7%	5%	9%
WDR76-NM_001167941.2eU2237-3'UTR+435	0					0	3	14%	1%	410	190	730	360	410	T T T G T A T T T T T A G T A G A G A T G G G G T T T C A T C A T G T T				13%	15%	13%
WDR82-NM_025222.4eU791-NP_079498.2aa168SF	0					0	2	2%	0%	260	170	650	40	310	A A G G G T T A A T T T T C G C T G C A G G T G T C A A C T C T G A A A				2%	2%	
WEE1-NM_001143976.2eU2364-3'UTR+310	0					0	3	11%	3%	280	510	710	360	410	G C T G T T G C A T T G T A A T A A A A G G T G T C T T T C C C T G T A				13%	7%	12%
WHAMM-NM_001080435.3eU980-NP_001073904.1aa294SF	0					0	2	13%	9%	250	200	790	160	350	G G A C C A G A C G G G C T G A A G A A G C T G T C G T C T C T A T T C					7%	19%
WHAMMP1-NR_036650.1eU633-ncr	0					0	3	29%	7%	250	260	740	230	410	G G A C C A G A C G G G C T G A A G A A G C T G T T G T C T C T A T T C				33%	22%	33%
WNK1-NM_001184985.2eU1650-NP_001171914.1aa221LL	0					0	3	7%	2%	350	220	600	510	320	C G T G G G A A T G T C T A A C G A T G G C C G C T T T C T C A A G T T				7%	9%	5%
WNK4-NM_001321299.2eU2110-NP_001308228.1aa368R*	0					0	3	8%	3%	220	390	620	260	330	C A G A C C C A T A A C A G C A A G A T G G T G A C C T T C C G A T T T				5%	11%	9%
WRN-NM_000553.6eU374-NP_000544.2aa45PL	0					0	3	15%	7%	190	370	650	180	270	T T C G G A A G A G T G T T T T T G A A G A T G A C C T C C C C T T C T				23%	10%	13%
WRN-NM_000553.6eU4368-NP_000544.2aa1376PP	0					0	3	9%	2%	210	360	690	310	540	A T G T G A T G T C A A C A A A A G G A G A T G T T T T C C C G G T T C				7%	11%	10%
WSB1-NM_001348350.2eU297-NP_001335279.1aa5PP	0					0	2	7%	1%	390	380	420	410	570	A G A C G G T G C C C C A T A G A T G G C C A G C T T T C C C C C G A G					7%	6%
WTAP-NM_001270531.2eU1117-NP_001257460.1aa304PL	0					0	3	3%	0%	360	280	650	280	140	G G G A G G G C A A C A C A A C C G A A G A T G A C T T T C C T T C T T				3%	2%	3%
WTAP-NM_001270531.2eU735-NP_001257460.1aa177Q*	0					0	3	4%	1%	270	240	530	590	360	G A G A A T C A A G A G C T T G G A A G G C A G C T G T C C C A G G G A				4%	4%	3%
WTAP-NM_152857.3eU920-3'UTR+258	0					0	2	4%	2%	440	220	670	320	180	C G T C G G A C T A T T C C G A A G A A G T G G C C A C C T C G A A A				3%		6%
WWC1-NM_001161661.2eU3870-3'UTR+2	0					0	3	18%	9%	410	0	730	140	150	T C C C A G C T C T C T C T G C A G A T G A C G T C T A A T C G C C A G				11%	28%	16%
XBP1-NM_001079539.2eU1749-3'UTR+573	0					0	3	13%	6%	310	490	670	420	380	T G C T A G T G T A G C T T C T G A A A G G T G C T T T C T C A T T T				19%	14%	6%
XPO6-NM_001270940.2eU4597-3'UTR+486	0					0	3	5%	1%	230	130	620	170	330	T T G C A A A G A C T C A C G T T T T T G T T G T T T T C T C A T C A T				4%	4%	6%
XPOT-NM_007235.6eU3359-NP_009166.2aa958Q*	0					0	3	3%	1%	270	520	600	370	420	G T T T T T A A A A A T T A C T T A A A G G T G T C T T C C A G A G A				3%	2%	5%
XPOT-NM_007235.6eU5730-3'UTR+2354	0					0	3	24%	3%	250	410	690	470	530	A T C A A T T C C A T A T A T G G A A A G G T G T T T T C C C T T T C A				22%	27%	23%
XPOT-NM_007235.6eU770-NP_009166.2aa95Q*	0					0	2	3%	0%	260	120	660	350	240	T C A T G G C T G C A A G C T C A G A T G C T G A A T C C C C A A C C A					3%	3%
XRCC3-NM_001100118.2eU728-NP_001093588.1aa147PL	1	4%		4%		0	3	19%	10%	440	220	760	370	180	C C G T C T A C A T C T G C A C G G A A G A C G C C T T C C C G C A C A		4%		13%	13%	30%
XRN1-NM_001282857.2eU9664-3'UTR+4486	0					0	2	8%	1%	290	120	680	120	360	G T T T A A T G T G A G T A A T A G A T G C T G T G C T G T C A T T G A				9%		7%
YIPF2-NM_001321439.2eU1904-3'UTR+794	0					0	2	7%	5%	420	270	520	580	340	A G A G G C A G G G G C C G A G G A C G G A G G C C T T C C C G A C A G				3%		11%
YIPF3-NM_015388.4eU556-NP_056203.2aa146PL	4	28%	11%	33%	3%	0	2	8%	0%	360	280	480	490	260	C C A T G A T C C C T A T C A A G A T G G T C A A C T T C C C C C A G A	37%	32%	31%	12%	8%	8%	
YIPF4-NM_032312.4eU839-NP_115688.1aa196TI	0					0	2	4%	1%	600	180	650	330	120	T G G T G G T T G G A T C A T T T G A A G T G G T G T C T A C A C T T A				3%		5%
YTHDC1-NM_001031732.4eU1883-NP_001026902.1aa516Q*	0					0	3	7%	1%	510	150	550	440	280	A A A A T G C G T C A C A A G A G A A G A A T G C A T T C T C A G C C C				6%	8%	8%
YWHAB-NM_003404.5eU133-5'UTR-149	0					0	3	7%	1%	440	190	750	280	250	G T A G T G G G C T T A G G A A G G A A G A G G T C A T C T C G C T C G				6%	7%	7%
YWHAB-NM_139323.4eU133-5'UTR-54	0					0	3	4%	1%	440	190	750	280	250	G T A G T G G G C T T A G G A A G G A A G A G G T C A T C T C G C T C G				4%	5%	2%
YWHAG-NM_012479.4eU2759-3'UTR+1832	0					0	3	5%	1%	390	280	640	360	180	T A C C A G A A G A A C T A G T A G A A G A A G C T T T G C C G C T T T				5%	4%	6%
YWHAG-NM_012479.4eU3115-3'UTR+2188	0					0	3	3%	0%	410	170	570	390	130	G A A A T G C A C T T G C C T A T G A T A C T G T C T C T C C A G T G A				2%	3%	3%
ZBED1-NM_001171135.2eU3140-3'UTR+687	0					0	2	10%	1%	370	470	690	330	120	A C A T T C T G G G T G G C G T C G A A G G A G C C T T T C C C G A T C					9%	10%
ZBTB1-NM_001123329.2eU264-NP_001116801.1aa23LL	0					0	2	7%	1%	400	300	690	490	390	G C T A A A C A A C C A A A G A G A A T G G G G T T T C T C T G T G A				8%	6%	
ZBTB40-NM_001083621.2eU1266-NP_001077090.1aa252SL	4	10%	4%	11%	3%	0	3	26%	4%	320	240	910	180	390	A T T T T C T T C T A G A A A A T G A A G G T G T C T T C T C A G A T G	14%	8%	12%	6%	30%	22%	27%
ZBTB4-NM_001128833.2eU2733-NP_001122305.1aa826SL	0					0	2	9%	5%	400	40	520	420	290	A G G A A G C C C C C C A A G A G A T G C A A G T C T C C T C A C A					5%	12%
ZBTB4-NM_001128833.2eU3469-3'UTR+171	0					0	3	35%	4%	210	200	780	310	430	C A G G C T G C T T T G T G T G A G A T G T A G T T T C C C A T C T C				39%	35%	32%
ZC3H12C-NM_033390.2eU6342-3'UTR+3670	0					0	2	21%	11%	350	280	650	350	330	T G T G T T T T G A A A A C T C T C A A G C T G T T T C C C T C T G A					29%	13%
ZC3H12C-NM_033390.2eU7884-3'UTR+5212	0					0	2	14%	1%	510	480	640	480	180	G T T A C T G T T A T G T A T T A G A A G T G G C T T T T C C C C C T A				15%		13%
ZC3HAV1-NM_001363491.2eU1524-NP_001350420.1aa379PS	0					0	3	3%	1%	420	320	720	210	530	C A A G G G C G C C A G G A G A A A G A C T G T G T T T C T C C C A C G				2%	3%	4%
ZC3HAV1-NM_001363491.2eU4598-3'UTR+1134	4	13%	2%	14%	1%	0	3	10%	3%	230	300	860	270	550	A T T A A T A T G A T T A C A G A G A A G G C T T T T C T C A G G T C	15%	15%	13%	10%	8%	10%	14%
ZCCHC24-NM_153367.4eU3381-3'UTR+2471	0					0	3	60%	12%	210	410	590	430	410	C G A T C T A G T T G G G A G A T A A T G G T G T T T A C C C C A T A T				73%	50%	56%
ZCCHC2-NM_017742.6eU2613-NP_060212.4aa738PL	0					0	2	11%	1%	260	280	640	220	170	A T G G T G C C C A G A A G T C T G A A G T T G T C G T T C C T G C A C				12%	10%	
ZCCHC4-NM_001318148.2eU340-NP_001305077.1aa102LL	0					0	3	15%	5%	380	110	370	610	220	G A A G C T C A T A A C C G A A G A T G T C A G C C T C C C T G T C C				21%	10%	14%
ZDHHC3-NM_001135179.2eU1651-3'UTR+485	0					0	3	10%	1%	330	270	410	610	340	A T A A A A C C T C A C C G A A G A T G G A T G C T T A C C C C T T G A				10%	11%	10%
ZDHHC8-NM_001185024.2eU952-NP_001171953.1aa270LF	0					0	2	10%	4%	410	280	690	370	40	C C G C T C G C G G T G A G T T T G A A G C C G C C T T T C C T T A G G				7%		13%
ZDHHC9-NM_001008222.3eU1412-NP_001008223.1aa312PP	0					0	2	7%	1%	150	270	740	260	210	G C C A C T G G A G G A A A G T G G A A G T C G A C C T C C C A G T A C				7%	6%	
ZFHX4-NM_024721.5eU1856-NP_078997.4aa479SF	0					0	2	17%	5%	480	230	690	230	240	C G G G A G A T G A G G A T G A A G A A G A T G C G T A C T C C A A T G				14%	20%	
ZFP62-NM_001172638.2eU3535-3'UTR+775	0					0	2	15%	5%	450	190	780	300	260	T G A T G A G G G A T A A C C T G G A A G T G G T A T T C A C A C A T T				19%	11%	
ZFP91-NM_001197051.2eU2145-3'UTR+216	0					0	3	9%	3%	280	280	670	180	260	G C T C C C C T T A T A A A A T T G A T G T T G T C T T T A C C A G A A				6%	11%	9%
ZFYVE26-NM_015346.4eU1195-NP_056161.2aa352PL	0					0	3	24%	1%	300	270	810	280	260	C A C T A A C A T T G T T G A A A G A A G A A G A C T T C C C A A A T C				23%	24%	25%
ZKSCAN1-NM_001287054.3eU4793-3'UTR+2853	0					0	3	17%	4%	550	210	700	180	170	C C T T G A A G C A G C T A T T T G A A G A T G T G T T T T C T G A G G				20%	13%	19%
ZMAT2-NM_144723.3eU904-3'UTR+290	0					0	3	11%	1%	380	250	680	490	300	G A A A A A C C T C C C C T T C T G A G G C T G C T T T C C C A A A A C				11%	13%	11%
ZMIZ2-NM_001300959.2eU2695-NP_001287888.1aa858LL	0					0	2	4%	0%	310	290	500	220	550	C C T A C G A A C A A C A A T G A C G A C C T G C T T T C T C T G T T T				3%		4%
ZMPSTE24-NM_005857.5eU2769-3'UTR+1305	0					0	3	19%	2%	210	150	710	180	410	T G C T C C G C T G A C A T T T G G G T G A T G T C T T C A C A T G G A				19%	18%	21%
ZMYM3-NM_001171162.1eU4275-NP_001164633.1aa1176R*	0					0	3	6%	0%	210	320	660	190	560	A C A C T C C T C C C C C A A C A A T A C G G T G T C T C T C G A G T G				5%	6%	6%
ZMYM3-NM_001171162.1eU6064-3'UTR+1238	0					0	3	51%	21%	150	260	700	190	540	C C C T T G T G T T G T A G T G A G A A G C T G T T G T C A C G A C T A				39%	40%	75%
ZMYM6-NM_007167.4eU4071-NP_009098.3aa1289SL	0					0	3	46%	12%	380	130	700	270	180	C A A C T G T T T A T T T A T G T G A T G C T G C C T T T T C A G C T T				33%	50%	56%
ZNF106-NM_001284306.2eU2768-NP_001271235.1aa813LL	0					0	2	5%	1%	360	140	730	210	260	C C T C T G C C T C C A C A G T A G A T G G C G A A T C C T C T A T G C				6%	4%	
ZNF131-NM_001297548.3eU1997-NP_001284477.1aa456SL	0					0	3	23%	7%	320	320	680	270	280	C A G A G C G T C T A G T A A C G G A A G A A G T T C T T T C A G T A G				16%	23%	30%
ZNF200-NM_001145446.2eU1350-3'UTR+37	0					0	3	16%	4%	300	200	630	270	300	G A A C C C T T T C T G G G T C T G A T G G T G C T G C C T C A A C C T				12%	18%	19%
ZNF212-NM_012256.4eU1409-NP_036388.2aa427LL	0					0	2	6%	3%	220	200	650	220	500	C A T C C C T T G G A G G A A A A G C C G G A G T T C C C T C A T C T G				4%		8%
ZNF260-NM_001012756.3eU4750-3'UTR+2664	0					0	3	13%	2%	470	370	690	500	410	T T T G T A T T T T T A G T A G A G A T G G G G T T T C T C C A A A G G				14%	14%	11%
ZNF274-NM_001278734.2eU1610-NP_001265663.1aa348Q*	0					0	3	5%	2%	270	90	850	140	330	G A C A C A G T G T T G A A G C A G A T G G A G T C T G C T C A G G A A				6%	7%	3%
ZNF367-NM_153695.4eU1696-3'UTR+305	0					0	3	6%	0%	150	260	710	270	390	G T T T A A T G C A T T C A T T G G A A G C A G T T C T C A C A G G A A				5%	6%	6%
ZNF367-NM_153695.4eU2794-3'UTR+1403	0					0	3	2%	0%	360	250	620	260	250	T T T A G C T T T T T T G A G T T G A A G A C G T T C C T A C A G A T G				2%	2%	2%
ZNF408-NM_001184751.2eU1660-NP_001171680.1aa526PL	0					0	2	6%	2%	400	240	600	250	280	A C C G C T G C C C A C A C T G T G C C G A T G C C T T C C C C A G C				5%		7%
ZNF410-NM_001242924.2eU2243-3'UTR+486	0					0	3	20%	2%	420	260	690	300	100	C A A C A G A G C T T C A C C A G G A A G T T G A G T T T T C A A G A T				21%	22%	18%
ZNF436-NM_001077195.2eU1155-NP_001070663.1aa208HH	0					0	2	7%	1%	190	360	660	230	390	G T G T G G G A A A A G T T T T G G A A G A A G T T C T C A C C T G A T				7%	7%	
ZNF445-NM_001369454.1eU5292-3'UTR+2005	0					0	2	8%	1%	470	190	670	190	240	C A G C T G T T C A T G G C A C T G A A G A T G T C C C T T C A C T G T				9%		8%

| | | |

Supplementary Table S5

PPR65 off-targets detected in the IMR-90 transcriptome. Off-targets appearing in at least two replicates of HA-His$_6$-MBP-PPR65 in the transcriptome of IMR-90. The off-target label reveals the gene ID, the transcript accession with the position of the edited C, the corresponding protein accession with the position of the affected amino acid and the induced amino acid change. Off-targets in non-coding regions are labeled with 'npc'. Shown are the number of replicates, in which the site was called (Rep.) and the mean C-U conversion rates (%CU) with standard deviations (STABW). Nucleotides from position -30 up- to +5 downstream of the editing sites are listed and nucleotide shading is based on the PPR-RNA binding code with perfect matches in green and moderate matches (transition) in yellow (see Figure 1). Conversion rates of individual replicates (labeled as in Supplementary table S3) are depicted.

>total: 7

Offtarget	Rep.	%CU	STABW	Binding region	% editing in individual replicates		
					I-9	I-10	I-12
TCP11L1-NM_001145541.1eU481-NP_001139013.1aa89-Q*	2	8%	1%	G C C C A T G A A A T T G T A G T A A A T G G A G A C T T T **C** A G A T T	7%	9%	
NDUFAF3-NM_199069.2eU523-npc	3	6%	2%	T G T C A T G A A G G C C G A G T A A C T G G A G C T G C T **C** T C A T C	8%	6%	4%
EML4-NM_001145076.3eU1496-NP_001138548.2aa413-LF	2	3%	1%	T G T T T A G C A T T C T T G G G G A A T G G A G A T G T T **C** T T A C T		3%	2%
MRPL14-NM_001318767.2eU572-npc	2	2%	0%	C T G G T T G C A G G A C T C G T G A A T G G A G C A G T T **C** T G A G A		2%	2%
SPDYE16-XM_017012887.2eU206-npc	3	13%	5%	G G A G A A A A T C A G A A A G A T G G C T T A G A G A A G **C** C A G C A	9%	18%	12%
HMGN1-XM_011529543.2eU1210-npc	2	7%	1%	C A G C C T C T G A T G A A G C A G G A G A G A A A G A A G **C** C A A G T	6%	7%	
EPB41L1-XM_024451852.1eU174-npc	2	6%	3%	C C C G C G C C G C C C C G C C C C G C G G C C T G C C T G **C** C A G A G		8%	4%

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