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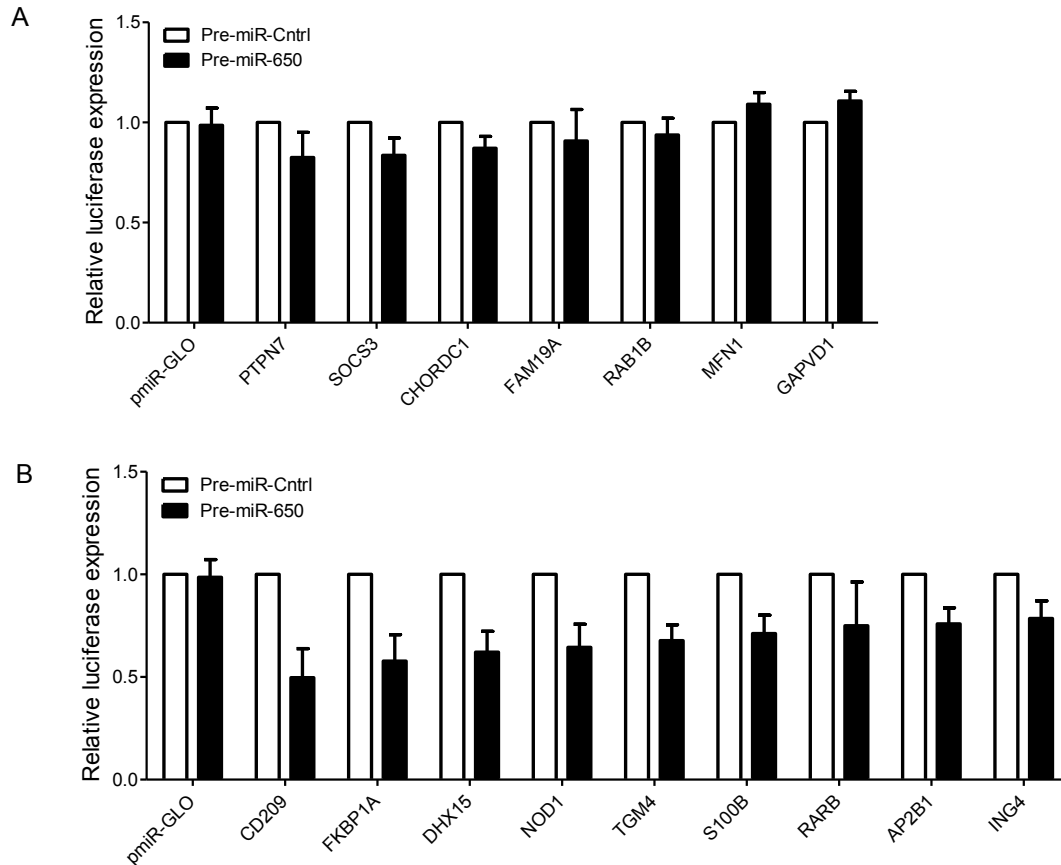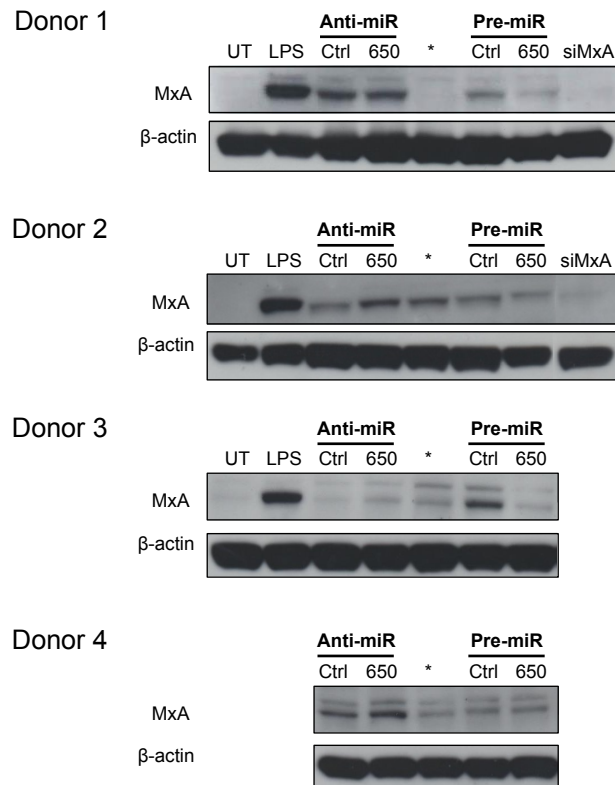
Supporting Information

for

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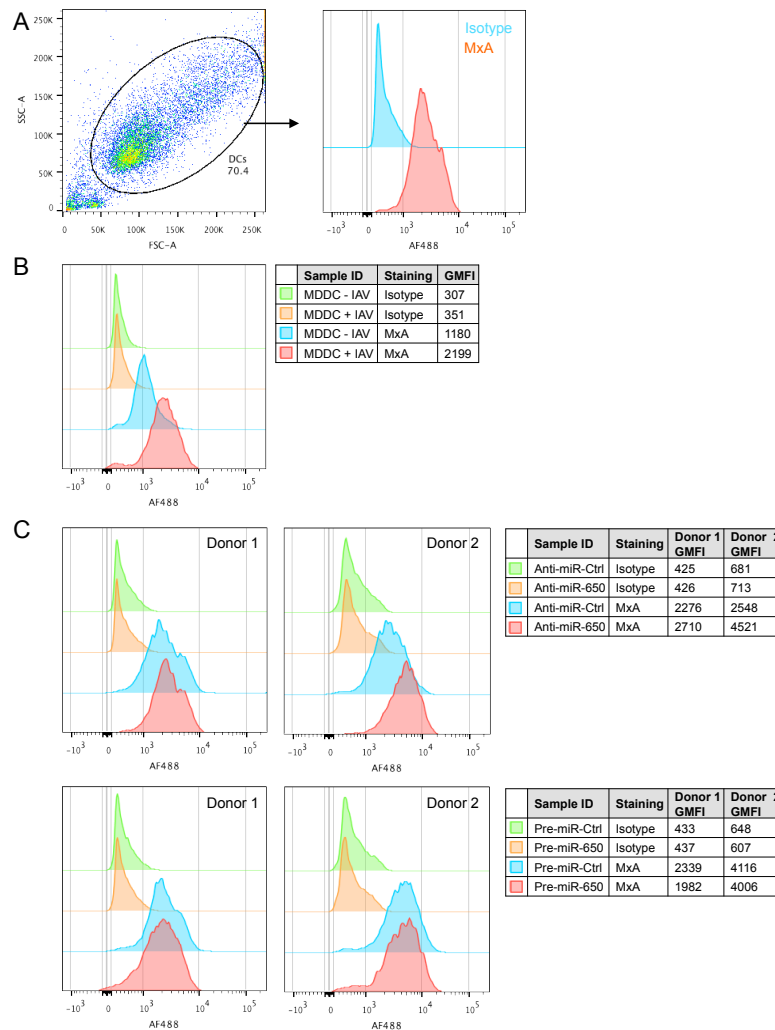
Pattern recognition receptor mediated downregulation of microRNA-650 fine-tunes MxA expression in dendritic cells infected with influenza A virus

Supporting Information Figure 1 | Results of 3'UTR luciferase reporter assay screen. (A) pmiR-GLO constructs that remained unresponsive to miR-650 pre-miR (p>0.05 and regulated less than ING4). **(B)** Genes which were not significantly regulated (p>0.05) but relative luciferase expression was repressed below the level of that of ING4, a validated target. **(A, B)** pmiR-GLO empty vector served as negative control. Firefly activity was normalized to Renilla and is expressed relative to control pre-miRNA. Measurements were performed in triplicates or quadruplicates and data is represented as mean ± s.e.m. from three independent experiments. Statistical significance was tested using a paired Student's *t*-test. None of the shown targets were considered significant, p<0.05.

Supporting Information Figure 2 | Effect of miR-650 on MxA expression levels in MDDCs. MDDCs were transfected with miR-650 pre-miR, anti-miR, an siRNA against MxA or corresponding scramble controls using electroporation. After 24 or 48 h MxA expression was measured by immunoblot. UT = untransfected + unstimulated, LPS = untransfected + 24 h LPS. Data from four donors shown.

Sample ID	Staining	GMFI
MDDC - IAV	Isotype	307
MDDC + IAV	Isotype	351
MDDC - IAV	MxA	1180
MDDC + IAV	MxA	2199

Sample ID	Staining	Donor 1 GMFI	Donor 2 GMFI
Anti-miR-Ctrl	Isotype	425	681
Anti-miR-650	Isotype	426	713
Anti-miR-Ctrl	MxA	2276	2548
Anti-miR-650	MxA	2710	4521

Sample ID	Staining	Donor 1 GMFI	Donor 2 GMFI
Pre-miR-Ctrl	Isotype	433	648
Pre-miR-650	Isotype	437	607
Pre-miR-Ctrl	MxA	2339	4116
Pre-miR-650	MxA	1982	4006

Supporting Information Figure 3 | Quantification of MxA expression by flow cytometry. (A) Definition of MDDCs by FSC and SSC and example of AF488 signal of cells stained with anti-MxA antibody or matching isotype control. **(B)** Induction of MxA expression 6 h post IAV infection (40 HAU/ml). One representative donor out of three shown. **(C)** Effect of miR-650 on MxA in IAV-infected MDDCs. Cells were transfected with pre-miR-650, anti-miR-650 or their respective controls using Viromer GREEN. After 48 h cells were infected with IAV (40 HAU/ml) for 6 h, stained for MxA or matching isotype control and analyzed by flow cytometry. Two representative donors out of four shown.

Supporting Information Table 1 | List of candidates chosen for the 3'UTR screen including *in silico* target site information.

Gene ID	TargetScan		Miranda		MicroCosm	
	No. b.s.	Context score	No. b.s.	mirSVR	No. b.s.	Score
AP2B1	1	-0.27	2	-0.70	NR	NR
ARHGAP31	1	-0.37	2	-0.27	-	-
ATG12	1	-0.34	1	-0.51	-	-
CD209	3	-0.51	6	-0.45	-	-
CHORDC1	1	-0.22	1	-0.59	-	-
DAGLA	2	-0.09	4	-0.46	-	-
DDX17	2	-0.39	2	-0.47	-	-
DHX15	1	-0.23	1	-1.32	-	-
FAM19A	1	-0.40	1	-0.68	-	-
FKBP1A	2	-0.55	3	-0.87	-	-
GAPVD1	1	-0.37	2	-0.48	-	-
GIN1	1	-0.47	1	-0.79	-	-
ING4	1	-0.35	1	-1.03	-	-
IRF3	1	-0.24	1	-0.28	1	18.40
MAP1LC3C	1	-0.24	3	-0.24	-	-
MFN1	1	-0.45	1	-0.97	-	-
MLLT10	1	-0.02	1	-0.34	-	-
MXA	-	-	-	-	1	18.56
NOD1	2	-0.37	2	-0.24	-	-
PCSK7	3	-0.53	3	-0.53	1	18.90
PTPN7	2	-0.53	3	-0.20	-	-
RAB1B	2	-0.05	2	-0.65	-	-
RARB	2	-0.40	2	-1.01	-	-
S100B	2	-0.53	0	-0.00	-	-
SIRPB1	3	-0.63	4	-1.76	-	-
SOCS3	3	-0.04	3	-0.53	-	-
TGM4	1	-0.37	1	-0.97	-	-
TMED2	1	-0.37	1	-0.81	-	-
TRPC5	1	-0.44	1	-1.03	-	-

No of b.s: number of binding sites predicted
NR: gene not found
- : no binding sites found

Supporting Information Table 2 | Primers used for amplification of 3'UTR sequences with restriction sites in capital letters.

Primer	Sequence
CXCL10 FWD	TCGCTAGCaccagaggggagcaaaatcgatgc
CXCL10 REV	AGGTCGACtagtcttcttaatatttccaggagagtacctc
IFIT2 FWD	TCGCTAGCgaatagagatgtggtgcccactagg
IFIT2 REV	AGGTCGACtggaatcagtgacttttatttctcataacagagg
GCH1 FWD	TCGCTAGCcttcattcagtgtgtgtctgcagaacc
GCH1 REV	AGGTCGACaataggaccaacttcaggaacatacatactc
ING4 FWD	TCGCTAGCtaagggccttggattccaacacagtttc
ING4 REV	AGGTCGACgaatgctcagcatgtttactaaaacagtgtc
MAP1LC3C FWD	TCGCTAGCccatgtcgggaaggatgtgtgctc
MAP1LC3C REV	AGGTCGACggacacctgcccacatgcagg
SOCS3 FWD	TCGCTAGCgggtaaagggcgcaaagggc
SOCS3 REV	AGGTCGACgtgctctttattataaattactgaaatgtttctttctg
CD209 FWD	TCGCTAGCagaacttcacccccttttaagctacagttc
CD209 REV	AGGTCGACtgcaaggcagccaagcaaggacac
SIRP1B FWD	TCGCTAGCtgaccctcagtctctgctgcctc
SIRP1B REV	AGGTCGACtaatgaagtgacattgagcagagacttgaagg
ARHGAP31 FWD	TCGCTAGCccaagaatggaagcttgtgaggagac
ARHGAP31 REV	AGGTCGACcggagagacaaaacaagaactagagttttaatg
IRF3 FWD	TCGCTAGCccctcgctcctcatggtgtgc
IRF3 REV	AGGTCGACgatcatagcaggaaccagtttattggttgag
RAB1B FWD	TCGCTAGCagggggcacatggagtgggacag
RAB1B REV	AGGTCGACaaaccctcagctcacccgaggg
NOD1 FWD	TCGCTAGCaggatgctttcctgttcatggggttttttgc
NOD1 REV	AGGTCGACaagagtgttttcagtatttattaacaaatgagctggc
AP2B1 FWD	TCGCTAGCaagactggtccagtacccttcaacc
AP2B1 REV	AGGTCGACgtaaatgtgagtttattgacgaagacacaagg
ATG12 FWD	TCGCTAGCccacaaagaaaatcaacttgctactacatgaaatgg
ATG12 REV	AGGTCGACgtgttattccaatatttaggacatagtaggcactc
CHORDC1 FWD	TCGCTAGCtgggagatggaaggaaggctattac
CHORDC1 REV	AGGTCGACttgacaaaccgatagtaaaacatatgctacc
DAGLA FWD	TCGCTAGCaccccagttgcgtggccagc
DAGLA REV	AGGTCGACgtgcttctacatccagtttatacacagctc
MLLT10 FWD	TCGCTAGCaagacttagtgataaaactgggcctgtagc
MLLT10 REV	AGGTCGACacattttgtacattttaatacatgtggaattttacatctagg
TRPC5 FWD	TCGCTAGCtcaagccctaatcatctgttctggaactc
TRPC5 REV	AGGTCGACgtgctgttaatatgagttaggaatgtagccc
FKBP1A FWD	TCGCTAGCaggaatggcctcctcccttagctc
FKBP1A REV	AGGTCGACctgagaaaagccggcataaagcacttttattgc
PTPN7 FWD	TCGCTAGCcccctgccaccctccggtg
PTPN7 REV	AGGTCGACgagtcagtcatccaagaagtctttattttcccac
GIN1 FWD	TCGCTAGCtattcattaaaaacgttgtatagaagaagtatcttgac
GIN1 REV	AGGTCGACggctgaaacaatagaattttattgtctcacag
MFN1 FWD	TCGCTAGCaatagagattgctttggtgaccatgataggagg
MFN1 REV	AGGTCGACgaaactggtgaggcatttccaccagc
S100B FWD	TCGCTAGCattagaaagcagccaaacctttcctgtaacag
S100B REV	AGGTCGACcttttattgaacgcaggccctcgcg
PCSK7 FWD	TCGCTAGCctcagggcctgacagtgtggg
PCSK7 REV	AGGTCGACttggaaggttttattttggaaaagctgtgcag
PPP2R1B FWD	TCGCTAGCgaggagcaggagggaaaaggcc
PPP2R1B REV	AGGTCGACgaactcatatcagtttaagagaacaactctggag
RARB FWD	TCGCTAGCacattttctagctacttcaaacattccccag
RARB REV	AGGTCGACtatatttttattctttgccaggagactccatgg
TMED2 FWD	TCGCTAGCaagcctcttcctgatgatcccaactcag
TMED2 REV	AGGTCGACttaccgaacctggggcatattagatacaacc
DHX15 FWD	TCGCTAGCttcagtgcttagaactgaagttattgagaggac
DHX15 REV	GGTCGACggccaaaattagtataaatagactttattgaagtcagtg
TGM4 FWD	TCGCTAGCcttgtctgatgctgtggagccttagttg
TGM4 REV	GGTCGACagtttaatttaaagcttattgatcatttgagcaaatctctgg
MXA FWD	TCGCTAGCcccacactctgtccagccccgta
MXA REV	AGGTCGACtgtctgctagaaatgagtttatt
EBF3 FWD	TCGCTAGCggacttctgtttaccttccgcagc
EBF3 REV	AGGTCGACcagataaaacaatcttattgtagggtctttaacag
FAM19A FWD	TCGCTAGCccaggagaaatcaagtgatcctcaaggc
FAM19A REV	AGGTCGACatgaaagagagagtccattttatatcccaattttattcacc
GAPVD1 FWD	TCGCTAGCcaagaccaaggcccaccaaggc
GAPVD1 REV	AGGTCGACgcaatgtccacatcttcatatttatttccacagtg

Supporting Information Table 3 | Sequencing results of the 28 3'UTR inserts clones into pmiR-GLO vector.

AP2B1	AAGACTGGTCCAGTACCCTTCAACCATGCTGTGATCGGTGCAAGTCAAGAACTCTTAACTGGAAGAAAT TGTATTGCTGCGTAGAATCTGAACACACTGAGGCCACCTAGCAAGGTAGTAACTAGTCTAACCTGTGCT AACATTAGGGCACAACCTGTTGGATAGTTTTAGCTTCCTGTGAACATTTGTAACCACTGCTTCAGTCACCT CCCACCTCTTGCCACCTGCTGCTGCTATCTGTCCTTACTTGTGGGCTTCTCCATGCTGTGCCAATGGCTGG CTTTTTCTACACCCTCTTTTGAGTGTAGTTTGGTATTTTGTAATTGAGAGCTCATTTCAAAAGCAGAAAAA GACAACAAATATTAAAGCAAGGAAAAGTGTAACTGAAACACTGCACTTTACTGTTTTATACTTTTGTACA TATGAGAAATCAAGGGATTAGTGCAACCAGTAGAAAGCATTGAAATGACTGTCATTAACCACACAGTCC TGGAGGCAGAGATGCAGTTACCTACCCTAGCTTTTGATGGGTTCTCTTACCTGTAGTAGCCTTATCCCTG GTCATTTGGATTTTCAGTTTGCTTTTTTCTTTTTTTCCCCTCCAAACTCCTTTTCCTTGGCCAAGCCTTCATG CTTCCCCCTTTCCATATTATAATCTCATTTGATTGCTCTGCAGTTGGGAACGGTGATCTTCTTGAATGATG TTTCAGTGTGC[...]CCTTCTTGGGACTTATTCCTGGAGTCAGTGGATACAAGTAGTGCAGAAGGTTCACA CTGCAAATAGTGTTCTCATCTCAAAGCAAACTATCATTCCAGAAGGAAAAGTGTGTCAGGGCAAGCAGA CAACACAATTTCCTATCAGAATATGTCCCTCAACCCCCGAAACAAGGCTTCTCTCAGCCTCCCCACCAGTG ATGGATAACAGCTCCTATTCTCAGCTGACCTGACTGAGCCAACCCATGAACTCTTCACTCCTTGGGGAAG CCACCTCCCATCACACCCCTGAGCAGAGTTAGGGAGGGAATTCTACTTCCCATAAAAGGACCTCTCCTGAG AGGCAAAACCTGTTGCCTCCACCACGGCTTCCCTCTTGGCTCATTCCAAGCTTGGCCAAATTGGGGAAGT GGGATGGAGGTTGCCCTGCATCCCCCCTCCTCTGCCTGAGTGTGTCTTTGTAATGTCAGCTGGCATCATA CAAAGAGCAGGAGAAGCAAACACCCAGAACTCTTTTGCTGGTCAGAGATTCCCTGAGTGTCTGTCCTCA CCCAAGCCTGCTCTGTGTCTGTGTTGTGAAGCTTGAGACTCTGGAAAGAAATGGGGAGGGGGGCAGG GGAAATGTTGCCCTAAGAATGCTTCTCATTCCTCTGTTCTTATTGGGTCCTGTTTTTCGGGAGGGTGGGG GTTGGGGGAAGCTTGACCTTGTGTCTTCGTCAATAAACTCACATTTAC
ARHGAP31	CCAAGAATGGAAGCTTGTGAGGGTAAACTGTGGCTTATTCTTACAAAAAGTGTAATAAAGGAGACTGAC CCCTGACAACATGGTAGGCACTGTATACATACTTGTTTTTGTTTTTTGTTTTTTAGAGACGGACTCTATGT TGCCCAGGCTGTTATGGAACTCCTGAGTCAAGTGATCCTCCCACCTTGGCCTCTGAAGGTGCGAGGATT ATAGGCGTCACCTACCACATCCAGCCTACACGTATTTGTTAATATCTAACATAGGACTAACCAGCCACTG CCCTCTCTTAGGCCCCTCATTTAAAAACGGTTATACTATAAAATCTGCTTTTCACACTGGGTGATAATAAC TTGGACAAATTCTATGTGTATTTTGTTCTGTTTTGCTTTGCTTTGTTTTGAGACGGAGTCTCGCTCTGTCAT CCAGGCTGGAGTGCAGTGGCATGATCTCGGCTCACTGCAACCCCCATCTCCCAGGTTCAAGCGATTCTCC TGCCTCCTCCTGAGTAGCTGGGACTACAGGTGCTCACCACCACACCCAGCTAATTTTTTGTATTTTTAGTA GAGACGGGGTTTCACCATGTTGACCAGGCTGGTCTCGAACTCCTGACCTGGTGATCTGCCCACCCAGGC CTCCCAAAGTGCTGGGATTAAAGGTGTGAGCCACCATGCCTGGCCCTATGTGTGTTTTTTAACTACTAAA AATTATTTTTGTAATGATTGAGTCTTCTTTATGGAAACAACTGGCCTCAGCCCTTGCGCCCTTACTGTGAT TCCTGGCTTCATTTTTTGCTGATGGTTCCCCCTCGTCCCAAATCTCTCTCCCAGTACACCAGTTGTTCCTCC CCCACCTCAGCCCTCTCCTGCATCCTCCTGTACCCGCAACGAAGGCCTGGGCTTTCCCACCCTCCCTCCTT AGCAGGTGCCGTGCTGGGACACCATACGGGTTGGTTTCACCTCCTCAGTCCCTTGCCTACCCCAGTGAG AGTCTGATCTTGTTTTTATTGTTATTGCTTTTATTATTATTGCTTTTATTATCATTAAAACTCTAGTTCTTGT TTTGTCTCTCCG
ATG12	CCACAAAGAAAATCAACTTGCTACTACATGAAATGGATTTTCACGGAAGAGACAGCTCTGAAAAGTTTT GATGCTTGTGGCAAGAGACTTAACAGATGTGATCTATTTAGTATGTGTCTACTCTATGTTTATGCATAAG AAAACATCCATAGCATGAATGGACTCAGAAAAATGTGATTTGTATTAATGCACCAGTCATCATAAAAGA TGGTCATGATAGTACACCCATTGCTCCTACTTGTTACTATTATTGCTGCAGATCTGCCTCCAAGGTTGAAA AGGAGACTAAGACTGTATAAACATCTTCATTGTCAGTTCTCAAAATGACTGAAATTGTTTTCATGGTAAA AGTTAATATACTAAAGGGTTCCTTTTTTTTTAATGTTTACATTTATCTCTATGTTTACCTTTTTAGTCACATT GACCTGCTGGCTGAATACCTCAAATAGTCCAGTAGAGGGCAGTCCACCAGGCAGAAAAGGTTAGGCGT TTTGGTTTCACATCTTTGCTGGGGAATAATAGGGGAAATGGCTGTTTTTGCTAATTTTTAGCTAATATCTA GCCAGGAGAGCAAGCACATAGGACAGACTGAAAGACTGTAATTTTACACAATACACATGGCTTAATTAT TTTATTGGGATACAGAAAAATATAAATTCTGGACAAATAAGTCATATACCTGTTTTCAGTCCTAACATTTA AGGATTCTTGAGTCCCAATCACATAACTGTGGTGTTACTCTGTCATTTATATGGTGTCAAAGCACTTGA TGAGTAAACCCA[...]TGATTCAGATTTTAACTTTTTAAAGGCTATCTGAATCATTCAAGGAGAAGATACCC TTTCTCTCATAAAAACACTTAGAGCAAACTACCACTATTAAATCACTTATTGCATACTGCCTCAGAGCCAT GTGTCCAGTTATTCTGGTTTTTATCTGGTACCCACACACACATAATACTTAGTACATTTCCTTATATGTAAA TAATTAGTAATGTAACACATCGAGTGAATGAAATTGTGATTAGCAAAGTATGACAGCTAAAAACAAAGG AAATTTTGTATAGTTTAAGTTTTTGTACAGCAGAAGGTAATGGAAAATATTTGCAACATATGACAGTGTT TTTAATGTCTTAAGTATATGAAGAATTTGTTTCAATTGGTAAGAAAAGACCAACTGAAAAATAGGCAAA ACATACCAAATTTCGATTCACAAAAAGATACAAATGGCCAACAAAACATGAAACACCTTGAACCCCATTG GTTACAAAAAATACAAATAAAAACAATGCTGACTGACAATAAAAATAATGTACATCTTGCTATTAGCAGA GTTGTGGGGGAAATCCTGTCATATTTTGGTGAATAGAATATGAGTTGGTATATCACTTTTAGGGGGCCATT TGGCAATATCAAAAACCTTGAAACGTAAGTATAAACTTCAGTTTGTTCGTATAACCTGTCATTCACATATT

	GAGTGCCTACTATGTCCTAAATATTGGAATAACAC
CD209	CAGAACTTCACCCCCTTTTAAGCTACAGTTCCTTCTCTCCATCCTTCGACCTTCACAAAATCTCTGGGACTG TTCTTTGTCAGATTCTTCCTCCTTTAGAAGGCTGGGTCCCATTCTGTCCTTCTTGTCATGCCTCCAATTTCC CCTGGTGTAGAGCTTGTTTTTCTGGCCCATCCTTGGAGCTTTATGAGTGAGCTGGTGTGGGATGCCTTTG GGGGTGGACTTGTGTTCCAAGAATCCACTCTCTCTTCCTTTTGGAGATTAGGATATTTGGGTTGCCATGT GTAGCTGCTATGTCCCCTGGGGCGTTATCTCATACATGCAAACCTACCATCTGTTCAACTTCCACCTACCA CCTCCTGCACCCCTTTGATCGGGGACTTACTGGTTGCAAGAGCTCATTTTGCAGGCTGGAAGCACCAGG GAATTAATTCCCCCAGTCTACCAATGGCACCCAGAGAGGGCATGGAGGCTCCACGCAACCCCTTCCACC CCCACATCTTCCTTTGTCTTATACATGGCTTCCATTTGGCTGTTTCTAAGTTGTATTCTTTATTTTATTATTA TTATTACTATTTTTCGAGATGGAGTTTCACTCTTGTCGCTCAGGCTGGAGTGCCATGGCGCGATCTTGGC TCACTGCAACCTCTGCCTCCCGGGTTCAAGTGATTCTC[...]TGATCCAGCATCTTCTGGACAGCTTCCGGT TTTTGTTTCTTCTGTCGTTTCTGTTCCTCCTCCTCTCTCTCTTTCCTCTGCTGTTCTTCCCATTGTTCCTTTAA CTTTCGCTCTTGTTCTTGCCGTTTTCTAGCCACCTCTTCCTTTTCCTTCTTTATTCTGAATTCTTCTTGTGCCT TCTGCTCTCTCAGCAACCACTCCTCATGTAATCTTTGCCTCTCTCTTCCCCATAGCTTTTCTAGTTGTTGTTT TTCAATAAAAGTGTCCTCCTCTTTCTGTGAGAGTCCTGAGTCCCTCAGTGGAGCAAGTTCCTGCTGGCGT TTCTTTCGTTTCTCCTTCTTCAGGGCGGCCCTGTACTTTTTGTGGCTTGGTTTCTCTGGAAATGTCACCTTT TCGGGCGCAGCCATCTTGCCGGCACCGCCCCGCCCCTCTAGTTGTATCCTTTATAATAAACTGGTAAACA TTGTAACCGCAGATTCAGCCCAATCTGGTTCAACTTTGTGTAATAAAATGGCGAGTTGTTTTTCAGTTGTC GTGGACCCCCAGGTTGCAAGTTACATACCCTGGGCATGTCCAGATGAACGAAGCGTGCAAATCCACGTG GAACCTAAGTGCTCAGACCGAGGAACAGGGACTGAGTTAAGAAGTGGACACCACGTGGCATGATCCTT GATCCAATCAGATTGAGCCCTGGCGTGATCCAGTCAGATCAAGCCTCCTGAATCCCCTCATTACAAGATC CAATCATATCATGCCTCACTACCCTCTGTATATAAAATCTGCCCCAGCCTCCAACTTGGAGAGACAGATTT GGGCCAGACTCCTGTGTCCTTGCTTGGCTGCCTTGCA
CHORDC1	GKRAAGGGCGCAAAGGGCATGGGTCGGGAGAGGGGACGCAGGCCCCTCTCCTCCGTGGCACATGGCA CAAGCACAAGAAGCCAACCAGGAGAGAGTCCTGTAGCTCTGGGGGGAAAGAGGGCGGACAGGCCCCT CCCTCTGCCCTCTCCCTGCAGAATGTGGCAGGCGGACCTGGAATGTGTTGGAGGGAAGGGGGAGTACC ACCTGAGTCTCCAGCTTCTCCGGAGGAGCCAGCTGTCCTGGTGGGACGATAGCAACCACAAGTGGATTC TCCTTCAATTCCTCAGCTTCCCCTCTGCCTCCAAACAGGGGACACTTCGGGAATGCTGAACTAATGAGAA CTGCCAGGGAATCTTCAAACTTTCCAACGGAACTTGTTTGCTCTTTGATTTGGTTTAAACCTGAGCTGGTT GTGGAGCCTGGGAAAGGTGGAAGAGAGAGAGGTCCTGAGGGCCCCAGGGCTGCGGGCTGGCGAAGG AAATGGTCACACCCCCCGCCCACCCCAGGCGAGGATCCTGGTGACATGCTCCTCTCCCTGGCTCCGGGG AGAAGGGCTTGGGGTGACCTGAAGGGAACCATCCTGGTGCCCCACATCCTCTCCTCCGGGACAGTCACC GAAAACACAGGTTCCAAAGTCTACCTGGTGCCTGAGAGCCCCAGGGCCCTTCCTCCGTTTTAAGGGGGAA GCAACATTTGGAGGGGACGGATGGGCTGGTCAGCTGGTCTCCTTTTCCTACTCATACTATACCTTCCTGT ACCTGGGTGGATGGAGCGGGAGGATGGAGGAGACGGGACATCTTTCACCTCAGGCTCCTGGTAGAGA AGACAGGGGATTCTACTCTGTGCCTCCTGACTATGTCTGGCTAAGAGATTCGCCTTAAATGCTCCCTGTC CCATGGAGAGGGACCCAGCATAGGAAAGCCACATACTCAGCCTGGATGGGTGGAGAGGCTGAGGGAC TCACTGGAGGGCACCAAGCCAGCCCACAGCCAGGGAAGTGGGGAGGGGGGGCGGAAACCCATGCCTC CCAGCTGAGCACTGGGAATGTCAGCCCAGTAAGTATTGGCCAGTCAGGCGCCTCGTGGTCAGAGCAGA GCCACCAGGTCCCACTGCCCCGAGCCCTGCACAGCCCTCCCTCCTGCCTGGGTGGGGGAGGCTGGAGG TCATTGGAGAGGCTGGACTGCTGCCACCCCGGGTGCTCCCGCTCTGCCATAGCACTGATCAGTGACAAT TTACAGGAATGTAGCAGCGATGGAATTACCTGGAACAGTTTTTTGTTTTTGTTTTTGTTTTTGTTTTTGTG GGGGGGGGCAACTAAACAAACACAAAGTATTCTGTGTCAGGTATTGGGCTGGACAGGGCAGTTGTGTG TTGGGGTGGTTTTTTTCTCTATTTTTTTGTTTGTTTCTTGTTTTTTTAATAATGTTTACAATCTGCCTCAATCA CTCTGTCTTTTATAAAGATTCCACCTCCAGTCCTCTCTCCTCCCCCCTACTCAGGCCCTTGAGGCTATTAGG AGATGCTTGAAGAACTCAACAAAATCCCAATCCAAGTCAAACTTTGCACATATTTATATTTATAT
CXCL10	ACCAGAGGGGAGCAAAATCGATGCAGTGCTTCCAAGGATGGACCACACAGAGGCTGCCTCTCCCATCA CTTCCCTACATGGAGTATATGTCAAGCCATAATTGTTCTTAGTTTGCAGTTACACTAAAAGGTGACCAAT GATGGTCACCAAATCAGCTGCTACTACTCCTGTAGGAAGGTTAATGTTCATCATCCTAAGCTATTCAGTA ATAACTCTACCCTGGCACTATAATGTAAGCTCTACTGAGGTGCTATGTTCTTAGTGGATGTTCTGACCCT GCTTCAAATATTTCCCTCACCTTTCCCATCTTCCAAGGGTACTAAGGAATCTTTCTGCTTTGGGGTTTATCA GAATTCTCAGAATCTCAAATAACTAAAAGGTATGCAATCAAATCTGCTTTTTAAAGAATGCTCTTTACTTC ATGGACTTCCACTGCCATCCTCCCAAGGGGCCCAAATTCTTTCAGTGGCTACCTACATACAATTCCAAAC ACATACAGGAAGGTAGAAATATCTGAAAATGTATGTGTAAGTATTCTTATTTAATGAAAGACTGTACAA AGTAGAAGTCTTAGATGTATATATTTCCTATATTGTTTTCAGTGTACATGGAATAACATGTAATTAAGTAC TATGTATCAATGAGTAACAGGAAAATTTTAAAAATACAGATAGATATATGCTCTGCATGTTACATAAGAT AAATGTGCTGAATGGTTTTCAAAATAAAAATGAGGTACTCTCCTGGAAATATTAAGAAAGACTA
DAGLA	ACCCCAGTTGCGTGGCCAGCCGGGCCCAGGCAGGAGCAGGTGGCCCTGTGGGCACCTGGTGCCTGCCC CCTGCCGGGCAGCTTTAAGGACAGACCCCCAGGGGCAGTTTAGCCTCAGGCACAGGCATCGCTGCTGA GCTGGGGGTCCGCATCCCTACCTCAGCTTAGGACCCCCAGAGCCAAGGTGGCTGGGATCTGGCCCCACA GATGGGGAAAGATGGGGAAGGGTGTGGAGTGGGGAGGAGCCTGGGCAGCCTGCTGGGTGGGCCACA CTCAGCCTGACTGCCCTCCATGGGGGGCATTCTGGCACCCCCTGCTCCAGGACAGGCCATGGGCAAGCTG

	CCTCCCATCACTGCCTGCTGGCTGCTCTCCCAGGGGCCAGGTGGAGAGCAGTGCCCCCCGACACATGTA TTCTCATCTGTGGTCCAGGCCGGCATCGTCCTGGCCACCCCCCAGATCTGGTGCCTGCTGGCCGGCCCCC TGGGGTGCCCCTGCCGAGGTGGCCTGCAGTGCTGTACATGTTTACAGAAGCTGCTGGGCTTGGCTCAG GATGTGTTCTGGGCTTGCAAGCCCCCCGCCCAATCATGTGTTCAGTAGCCGTCCTCTGAGCAGGGCCCA AGGCAGCCAGGGGCCTGGAGGGGCCAGAGGAGGGTGGGGTCAGGGCCGCCCCTTCTCTGCCTTGTGC CTCTCATGCTGCCTCCTCTGCCCATGGGTCCTGGGCACCCAGGCCTGCCCTGCCTGCTGGCTACTTCCTG GCTTACCTTCTACCCCCAAGGATCCTCACCACCCAAAGGGTGGTGGGCACTGCTGTGACCACCCCAGCTG CAGAGTCAG[...]CCCTTGAAGGATGGGCCTGCTGCACGTCTCCCTCCTCCACCCCATACCACACTGGGGG GTCTGAGCCACCCCCCTCAGCCCCGTTCGGCTCAGACCGACCCCCACTCCATCCCCAGACCTGCAGCACA AGTGCGCGGGCCTGTCCTCCCAGGGGCCTGGGCGACTCCATATGCAATCAGTAGCGAGCAGCCGGGCC CCACAGACCCTCATGCACTCTCTTACGTGCCATTCTCCCCAGACTTTTTTTGTACTTAATGTATGAAAGAT CCAAACTAATATTGCTGTAAAAAGGAGAGACAAATTAATATAGCTTATTCTATAAATATATCTGTATATA AAGGTTTCTGTATATTGTATAGAGCTGTGTATAAACTGGATGTAGAAGCAC
DHX15	TTCAGTGCTTAGAACTGAAGTTATTGAGAGGACAGCTTTAAAAGATGAATGAACTCAAAAGTTCGAGTT GTGCTCTTCACGTTGGTTCGATAATGGCCTTTATTTGAAAGCTTTTTAATTTTTCTTTACAGTAAATATTCC ATTCTGATTTCATAAATTAAACATTTATGCCTCCCTTTTGTGTTGACACTGTAGCTCATACTGGAAAAGTC GATCAATGTTTTGCAGTTTATTGAAAGTAGTTCTATATATAACAATGTTATAAGCATTTCTTTAGAAATGG TTGAAAATGCTTCTAAAATGTGATTATCGACCATGGTATGCATGATCGTTGTAATTGTTGACATTCCTTTT AGAAGTTGTGAAATGTTACAACTTGTGCTTATGTAGACACAATCTTCGTCTCAGTACAGAGGCACTGAC TTCAATAAAGTCTATTTATACTAATTTTGGCC
FAM19A	CCAGGAGAAATCAAGTGATCCTCAAGGCTGATGACATTGAACATGCGCATAGAAACTTAACTCAACTCC TGAGGTGATCTTGAAGATTTTTATACCACTTGAAAGAGGCGCTCAATAGTCTATTTCCAAGGGATTTCAT GGCCTCTTCTTGAAATCAAGACTTTTTAAAAGTCAGACATGAACTTGCATGTCATGAAGATTTCAGCAGA TTTGAACTGTGTTCAACTTGTAAATTGTTAAAAGAATTTGAAGTCACTGTCTGAGGAGCTGGTGAAGAG TTGTTTTTTTCAGGGTGATGTTAGAGACAGTCACCTTTTGAGTTATTGGCTCCAGATGTGACTACTTTTCT TGTTTCTGCAAGCTGTATCCCAAGTGCACTGTCCTTCTGTCCTGGATGTGTTCCTGGGTCCTATGTTCATT TGCTAGTGGGACTACACATGGCTTTAATGACATTTCCTTTGAGAACTTTTCCTCTGGCATGGTGTAGACT GAGACAATTTTATTTATATCCTAATCTTGGAGCTCAGAAAGCCTACATGTTTTAACATCTTAAAGTTGCTT TTGTTAAAGGAATGGAAATATATATCCATTGGTAATAATGTTGGCAAGTAATAGTTATCTGAATAAATCA ATCATATAAGAATGTATAGACAAGCTGACATATTTCCCTAAGGCTAACAACACCCTGCTGAAGCTCTTTG TCAAATAGGTAGTAGTTAGAACTGGATTGCCATTTTCATTATATAATACTTTGTACCTCTAGAGCACTCTC CCTTTCTG[...]GAGAGAAGAAAGAAAAGTGCATAGCCATTCTGTAACAATATTGTGTAAACCTATAGTTT GAAGGAATGCAAGGAGAAGGATTTCTGTGTTTTACTCATTTTAGGCTGTTCAGAAGATGCTTCAAAAATT GTCCTGTTAGAATTTCCATCATGGAAGGTGGTATGGAAGAAGGTATGGAAATACTTTGTATTCTAAAAA CTCACTGACGTGGTCAGTTAGACATACGTTGGTTTCCAGGATGGAGGCCCATATATCCTGGGGGAGCTTT GGTCTATTAGTTTGTGACAATATTCAAAGGCCAAAACACTACTCAGACACTTTCCTGGGAAGAGCAACTA AAAATGTAAAATTGGTTAAAAATAAATCTGAAAAGTATGTATCTCACATTGAACTAAAATCCACTGTCT CATAAGTTCATGGAATGAAATGGCTTTCTGCCTCCATTTTAATCATGCATAAAATGAATTAGATGGCTTT GAGTGGATTTTCACAATGGCTCAAGACTATATGAAATTATAAAAAAAAAGTTGCCCTGGGGTTTCTGCAT CAATTAGAATATCATTAATTTCTTTGTAACCAAGTGAAAAACTATACTTTTTGGAAATTATGAATTTGTCC TAGGTTTGTTTGAGATTTGAAATTATACATCATGCTTCTCATTTTTTAAACTATGTTCTTTAAATCAACACT GGAAACTCTGTATTATATACAAGTGTAATACATGCATATAATAGAAAAAAAACATGGAATTTCAAATATA CTAACTAGATTATCCCCAGTAGATTAATGTTGTGACTATTCAGAAAAGGTGAATAAAATTGGGATATAAA ATGGACTCTCTTTCAT
FKBP1A	CAGGAATGGCCTCCTCCCTTAGCTCCCTGTTCTTGGATCTGCCATGGAGGGATCTGGTGCCTCCAGACGT GTGCACATAAATCCATATGGAGCTTTTCCTGATGTTCCACTCCACTTTGTATAGACATCTGCCCCAACTGA ATGTGTTCTGTCACTCAGCTTTGCTTCCGACACCTCTGTTTCCTCTTCCCCTTTCTCCTGGTATGTGCGTTT ACCTAAACTATATGCCATAAACGTCAAGTTATTCATTTTACTTTTTCATTTTGGGGTGAAGATTCAGTTTC AGTCTTTTGAATATAGGTTTCCAATTAAGTACATGGTCAAGTGTTAACAGCACAAGTGATAAGTTAACGT TAGGATAGGAATTGGTGTTGAGGGGGTTGCAAGAATATTTTATTTTAATTTTTTGGATGAAATTTTTATC TATTATATATTAAACATTCTTGCTGCTGCGCTGCAAAACCATAGCAGATTTGAGGCACTGTTGAGGACTG AATTATTCTCCAAGTTGAGAGATGTCCTTGGGTTAAATTAAAAGCCCTACCTAAAACTGAGGTGGGGAT GGGGGAGAGCCTTTGCCTCCA[...]TCAATTGAAGGTGCTGTTTGTAGACTTAACACCCAGTGAAAGCCCA GCCATCATGACAAATCCTTGAATGTTCTCTTAAGAAAATGATGCTGGTCATCCCAGCTTCAGCATCTCCTG TTTTTTGATGCTTGGCTCCCTCTGCTGATCTCAGAGTTTCCTGGCTTTTCCTCCCTCAGCCACTTCTCACCC CTTTGCTGTCCTGTGTAGTGATTTGGTGAGAGGAATCGTTGCTGCCCCCTTCCCCTAGCACCATATATGA GTCTCAAGTTTTATTATTGCAATAAAAGTGCTTTATGCCGGCTTTTCTCAG
GAPVD1	CAAGACCAAGGCCCACCAAGGCAGCAGACTGTTAATCAGACAAACAGATCTCTGAGAAGGTGCATCAG CTGCTTTGAAGGCTGAAGATTGTTTTGTATGATACTGCACAGCATCAGGCATTTTAAAGCAGATCTTTAC TAAACAGGTTAATGAGCTAACAAGCAGGTTCTCTCGTCTTTGGGCTCTTTCCTTTCTGAGTTGCATATTCT ATTTTCTTGTCCCCAAGTAGAGACTAGTACTACAAAAAGGGACCACATTTTTCAAGTATTTCTAAGTATAA AAAACAAAACAAAAATCTCTTAGGAAATGTCTAGACCTCCATTCTTGGATTCCCTTTCTTTCCTTTTATTTT AAAAAAGAACAGTACCCCTCTTTTAAGATGCTGTCTTACATTAATGAGCATCTAATGGAAAGAAGGTAT

	GAGTTGCACTGAGGATTAGAATAGTGGTGCGTTAGTGGCATTATCTATAAATACACTCACCTAAATTGA AAGCTAAGAAGGAAATGTAAATATAATATATATTTATATTTGATGTAATATGGACATCTGCAGATTCTAA TAAACAAGGACTATTGCTGATAGTAGGCTGTGACATACTGTCTTGTGAAATGGTTTCCTTGACAAAATTT AAGCTGAGCTTAAAAGCAAAAAACAAAAGTACACAGAAATATTTATTAAAATGTAATACAGTTTATTG AACTTTCTAGGTATGGAGTTTGATGGACAGGGCTGCCTTTAATGAGTGTGAA[...]TATTTTATTTTATTTT ATTTTTTTGAGACAGAGTCTCACCCTGTGCCCAGGCTGGAGTGCAATGGTGCGATCTTGGCTCACTGCA ACCTCCACCTCCCAGTTCAAGTGATTCCCCTGCCTCAGCCTCGCGAGTAGCTAGGACTACAGGCGCATGT CACCAAGCCCGGCTAATTTTTGTATTTTTAGTAGAAACGGGGTTTCACCATGTTGGCCAGGATGATCCTC AATCTCCTGACCTCGTGATCCACCCGCCTTGGCCTCCCAAAGTGCGGGATTACAAGCGTGAACCACCCTG CCCAGCCAGAAACTAGATTTTCTTTATGCCTCCACCCCTTCTTATTCATTTACTTTACAATACCAAAATAAC AAATTGCATAGGAGTGTGGGATGTGGTTTCTGCCTTCTAGAGAGAGATCAGAATTAAACTAGTACTATG AAATGTCCTTTTGAATGTTAGGTCAAGAAATCCATGTACAGAGTCGTGCACTTCATTGGCTGTAACTGTC AAACTTGCCTTGTATTAGAAGTTAAATCCCATCGTAAATACATCACGAGGCCAGCTGTGTGATTTCTGAG ACCTAGATGAGAGTCCATTTACTTCAGCCTTTGATTCAGTAAATGTTAAGCAGCAGAAGACTTCGAATGG TTGAAATTCATTGTTACAGGATTTAACTCATAAACCAATGAGAGATTTTTTTTTTCTCTGCAATGGTTGCT AAGTCTATTCCATGTTAACACTGTGGAAATAAATATGAAGATGTGGACATTGC
GCH1	CTTCATTCAGTGTGTGTCTGCAGAACCATAGCTTCCACGCACCTGAACGAGCACAGAATGAACTGACGG TGGAAGACATTATGAGCTGTGTCCAACGTTTTAACCAAAGCGTATCGTACCAACGATCTGTGAAAATGC ACTGGAAGCTTCTGGTCCCGGTTTCCTTTGTGGTCTATGTGGGTCTTGTCCTCATTGTAACTCCGTATAGA TGGTATAGGTATTTTAATCCTGGAAGCTGTTGCCTTATTAATGATTATCTTAAAATTTCCTCCATTGGGGC AGCGTGGGCCCAAATTAAAACAAACAAAACCGCAACTCCTCCACAGAAACACAAACACAGTTATTCCATG AAGTTTAGTATTTGGTTGACATAGTGCTCTTCAAATTCATCCCATTACCCTAAAAGTAATAACTTTGATGC TTGCTTTAACTTTAGTCCCATCTCTGCCACTTTGATGCTATTTGGGTTATGATGGGGCAAGATGGCAGAG GTATTGGGTTTTTTTGTTTTTTTCCATTCCTCTCTACTTCTGTTTCCTAGCTTTTTCTTTCTGGAGTTTAAGT ACAGTGATGGTTGGCTTGAGTACCTTTTTAAATCTAGCCCAGTATAAACATTAGCCTGCTTAATATTTAGA CATTTATAGGTAGAATTCTGAGCACTCAACTCATGTTTGGCATTTTAAAGTAAAAACAAGTGTGACTTCG AGGACCAAAGAAATTGTCAGCTATACATTTATCTTTATGAACTCATTTATATTCCTTTTTAATGACTCGTT GTTCTAACATTTCCTAGAAGTGTTCTTATAAAGGTCTAATGTATCCACAGGCTGTTGTCTTATTAGTAAAT GCAAAGTAATGACTTTGTCTGTTTTACTCTAGTCTTTAGTACTTCAAAATTACCTTTTCATATCCATGATCT TGAGTCCATTTGGGGGATTTTTAAGAATTTGATGTATTTCAATACACTGTTCAAAATTAAATTGTTTAATT TTATGTATGAGTATGTATGTTCCTGAAGTTGGTCCTATT
GIN1	TATTCATTAAAAACGTTGTATAGAAGAAGTATCTTGACACATTCTTAATGACTATATTCTGAAGGTTTATT TTATAGTTCTTATCTAAAATTATGCCACATTTGAATATCAGTATACGTACATATGAAGGCAAAGGAAGCA TGTAATATATAGAATTCACTTTTTCTTCTAAAAAGTGAACAGGCAAAGCACCCCTACTTCTTGGGAAATA AATTCCAGCCCAAATCTCTCAAACCTTTGTATGGTTTTGGCACCGTTTCTAAGTTTTAAATTTTCTGAAATT CTCTACCATTTAAACAGTAAGTTTGAACTACCTTGAATGGAATTGATAAATACTGAATCAACTGTAACAA TGAATGAAATGAAGCTTCTTTCTGTTTCATTAGAACTTCTAAAAACAAGATTGTATGAAAAAATATAGGG TTATTTAATAGGCTTTCACAGAATATTGGTAATTTCAAATTATCTAATTGGTTAGATAGGGTCAGGATTA GGGTCTGAAACTATGTATTGGTTGGGAAACAATTTGTTTATTTTCATACTATATATTAAAGATAAAACCAT CGACCAGGCATGGTGGCCCACACCTGTAATCCCAGCGCTTTGGGAAGCCAAGGCAGGATGATCACTTG ACCCCAGGAGTTCGAGACCAGCCTGGGCAACACAGGGAGACCCTATCTCTACAGAAAAATGTTTAAAAA TTAGCCAGGTGTGGTGGCACATGCCTGCGGTCCCAGCT[...]AAACTATGTAAGCCATGTACAACACAAGT TAAGGCATGCTAAATTGCAGAAGACAGGTGTAGATAATGTACTTAGGGAGGCAAAAAGAGAGAAGTTG TTTTTACATAGGAAATTTGTGTTTATCCTTATGGAAGAAGGATCATTTAAGCTTGACCTTGAAGAATGTA TAGGATTTGGTAAATGGATACAAAAGAATTAGGGGAGAAGTAATACACAGAAATGGAAAAGTATTGTA ATGATTCATAAAAAGGCAGGGCTTCTTGTTGTCTACACTGCCTCGGGTATAAAGTGAAGAAGCAAGATA ATGAGGGATAAAGCTGAAAAGGTAAGTAGGAAACCTTATGGAGAGCTTTGAATACTATTAAGGATTGA TATGTGCCCCTCCCAAAATTTGTGTTGAAGTCTTAACCCCCACCACCTCAAAATGTGACCTTATTTGGAAA TGAGGTTGTTGCAAGTGTAATTAGTTGAGATCATATTTCAATAGGGTGGGCTCTAATACAGTATTACTGG TGTTCTGATAAAAGGGGAAAATTTGAACACAGACTCAAGGAGAATGCCATGTGAAGATAAAGGCAGAG TTTAAGATTATGTTTCTATATGCCAAGAAATGACAGAGATTGCCAGAAAACTACCAGAAGTTAGGGGAG AGGCATTGAATACATTTTTCCTCATTCCTCAGAAGACCAACCCTGTCAATACCTTATCTCAGACTTTTGCCT CCAGAACTGTGAGACAATAAAATTCTATTGTTTCAGCC
IFIT2	GAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATT CAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTA TGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTGGGGG GTAGGTCCACGGGCTTGGTGATAGAATTATTTCTCGATTGACTTCTTGAGTGCAATTTGAACTGTAACAT TTGCTTAGTCACCTTTAGTGGAGTAATCTACTGGGCTTGTTTCTATATTTATATAAAGCAGCCAAATCCTT CATGTAATATTGAAGTCCATTTTTGCAATGTTGTTCCATACTTGGAGTCATTTTGCATCCCATAGAGGTTA GTCCTGCATAGCCAGTAATGTGCTAAGTTCATCCAAAAGCTGGCGGACCAAAGTCTAAATAGGGCTCAG TATCCCCCATCGCTTATCTCTGCCTCCTTCCTCCTCCTTCCCAGTCTATCATCAACCTTGAGTATTCTACACA ATGTGAATTCAAGTGCCTGATTAATTGAGGTGGCAACATAGTTTGAGACGAGGGCAGAGAACAGGAAG ATACATAGCTAGAAGCGACGGGTACAAAAAGCAATGTGTACAAGAAGACTTTCAGCAAGTATACAGAG

	AGTTCACCTCTACTCTGCCCTCCTCATAGTCATAATGTAGCAAGTAAAGAATGAGAATG[...]TGAGAAAT CACAAAATTCACGGTATGCTTGGAACGATTGAGATTTTCTAGGTAGATGCTGAATAGCCTAGACATCAA AGTTGGTGTGAACCAAAATAGAGTCAGCTGACCCAGCATCAGCCACACTCTGGGTTGGAAAATGTTTGC CTGTTGGAATTAATTTAAGCTTAAGTATATATCAACATTATTTTATTGTGCAATTAAAACAATACAAATTC ATGGTTTTTTAAAGTTAAAAAATTCTAACCACTGTAACAACAGTTTTTGTGTTATTTTCTGTATTAAACATCT TGTTGCACGCATTTGAGGTCATCAGGGTGCAAAATTTGTATTCCTGAAAATGTCATATATTTTCATTAATA AATAACCTAAATATGATAAAACATAAAGCAGTGTTCTGGTTCATCTGGAATTTTGCTGTACTTTAAATCTT TCAGACTCAGCTACTGATAAATGAAACGTTACACAGGTGTGAACCAAATCCAAATAACCTCGACTGGTCT ACTATCATAATCACCTGAACAGAACAAAACTTTTTCCTCAGCTTTAAGAGTCCAGGGCTTCGGATAACAG CTGCCATCTGCCACCTGCTACCATTGACCTACGTGAACACAGACATTCTGTCTCCACCTTGATGATGGGT GGGCTGCTCCCCTTTTCTTTGTTAAATTTTGTGCTTTCATCACATTTTCTCTATTCTGACCTCTGTTATGAG AAATAAACGTCACTGATTCCA
ING4	TAAGGGCCTTGGATTCCAACACAGTTTCTTCCACATCCCCTGACTTGGGCTAGTGGGCAGAGGAATGCC TGTGCTGGGGCCAGGGGTTCAGGGAGGAGTGGATGGCACAGTGCTGTCATCCCTTCTCCTCCCCTCTCC CCACTCCCGGTGCTGAGGCTGCATCAGACCCTGGTAGGGAGGGGTGCCGCAGCCACTAACGGTATGTG CTCTCCTTCAGCCCTCTCCCTTCGGAGGGACGTGGTCTTGCCCACTGTCCTTTTGCCTCCATGCTGAGGTC GGTGCTGTATTTCAGAGGGAGGGTCCTTTTCATTCTCCTTGCTTTGTATTTAAGGACTGGGGCATAGCAT GGGGGCAGTCCCCCAGACCTCTTCATTCCCCCTCCTGTGGTGAGGGCTAGGTGTGATCAACACTTTTCTT CTCCATTCCCTTCCTGCTTTTTTCATGGTGGGGGATCCACCAGGTCATCTAGGCTCTGGCCCTAGTTGAAG GGGCACCCCTTCCTCTGTGCCAAGAGGATTCATCCTGGGAGAGGGGGCAAGGTGGAATGCAGATAACT CACATGTAAAAGGAACTTGGGTAGGTAAATAAAAGCTATACATGTTGGCCTGCTGTGTTTATTGTAGAG ACACTGTTTTAGTAAACATGCTGAGCATTC
IRF3	CCCTCGCTCCTCATGGTGTGCCTCCAACCCCCCTGTTCCCCACCACCTCAACCAATAAACTGGTTCCTGCT ATGATC
MAP1LC3B	CCCATGTCGGGAAGGATGTGTGCTCTGACAGACGTGTCAGATGCTGGCAGAAGGGATTGGTTTTCTCCT GTGTATACAGTGGAGGAGTCTGAGAAGCAGGGATGCCTGGGGTGATCAGCTCCAACCAGTGGCAGCA GAGTGGTGGCTCTTCCTAGTTTAGTTTTTGTGCTCCGTGTTCTTGTGTCCTTCTAAGAAAAATGTGGGCT GCTCTTGAAAGTTATATAATTATCATTTTTTTTTTTTTGAAACAGGGTCTTGCTCTATTGCCTAGGCTGGA GCACAGTGGCATGATCTTGGCTCACTGCAACCTCCGCCTCCTGGGTTCAAGTGATTCTTCTGCCTCCACC CCCCGAGTGGCTGGTATTACAAGCACATGCCACCACACCAGGCTAATTTTTGTATTTTTAGTAGAGACGG GGTTTCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCCACCCACCTCGGCCTCCCA AAGTGCTGGGATTACAGGCGTGAGCCACTGCATCCAGCCATATAACCGTATTCTAAATAAGAAATGGTT GGCTTGTGTGATGGTTTTGTGTAATGAGCTAGAGATAATATTTTAAGTGTCTTCTGTGGTATATGTGGGA GGGCCATTAAGGAGTGGGTTTCACTCCCTGCATGTGGGCAGGTGTCC
MFN1	AATAGAGATTGCTTTGGTGACCATGATAGGAGGAAACGAAACTTGTAAGATTGGAACAGTTGTTATTTT TATGAAATTACTTTAAATATGAATTGTACTAACTGTACCTAAATAGCAAAGCCCTGTGTAGATTCTGGTA ATGATCTGTCTCAGGGTATGTGTATTTTTGAAGAGTGTTATGTCCTTAGTTTTAATTTTGAGTAAAGAAA AGGCTAAAATCATGAATTAGTTACAAGCAACAGTACCAACTTATGTGACCCCTGAGGGGTGGGGCTGTG AGCTCTTAATTTGTTTTTGATTCTGAAAAACTCTGCTTCCTGGCATCCAGGAGTTAGAGATTGAGCCTTTC ATCTTCTTTCTCAAAACTAGTTTTTGATGCTTTCTTTCATGGGAATAGTCACTTTTTTATTTAGTAAATCGC ATTGCTGGAACCACCAAGGAGTGTGGAATGTCCTTGAGTGTATTATTTATGCAAGTCACAGTCACGTTG CCATCATGGCAGCTATGTGAAACACTAATAAATGTGTTTTTACTTTTTATTCCCGTTAAAACTGATGTAAA ACAGGATAAAGGCTTGTTATAGTCACTTATAAGTATCTGGGTCTAAGTAATTTCCTTAGATGTTTCTAAA GAAACATTTTCAGCTTTGCTCCCATTATGATTCCAATAAGGAACGCTTTCCTAGTGCAATTTTAGGAGTAA AGTTTGAAGAGATAAAAATAGCCAAAGATAGGAGACGTCTGAATTTTGAATGATAAACAGTGATGTTTT AAAAAAGCTGTTGTTCTTCAGGAGGCATTTGCCTAGGATATTGCTGGATTATACCCCATTGGAGGCTTTT AATTTTATTTGTATGAATTTTCCAGGATTTCATTAAAAATTATTATTGTATTTTTTTACCTTAATGAAAGATT TTGGGTTCAAATATCTTTCTATATTAAAAGCTGATTGAGTCTGTACATATGTAAATTATGCCTAGTGGAG GTTCTGTTGACTTTCTTCCCCACTGTGGAAGAGGCCAGTTTTGCCTCCATTTGCACATTCATTTCAGTTATT TCTGATCCATAAATATAACATTTACAAAATTCTTCCTTGAGCTGGTGGAAATGCCTCACCAGTTTC
MLLT10	CAAGACTTAGTGATAAAACTGGGCCTGTAGCTCAAGAGAAAAGTTGACACCTGAGAAACATCTAGAAAT TGCCTATCCTGCTGTTCTAGCACTTCATCTGGCTGCCTTTGCAGTCCTTTTACTACAGCTATGAAGAAACG CAACAAGAAACTCAATGCACAACAAAGGATTAATTGCTGCAAGGACATTCTTGTAAGGCTTTGATTAGTT TTCTTGTTGCTTTGTTGCACTGAAATGGAATTCCCATGCCCCTACCCCTTACCCCAGTTTTTTGAACATGG AAAGAAAATTTAATAACTTTTTAAAGTGACATAATTTACATGCAATATGTTTATCAACTCAAGAATTTAAT ATAGTTGGTACACAACTAGTTTTGTTTATAAATTGGAGATGCAAATAGCAAAACTAAATACTTGCTCCAT TTACAAACTACTTGATTTTATTGTACAAGTTGAAATATGCTCTTTTGTTTGGGTTACAGTATGCTTGCTCTA AGTCAAATTCCAAGGAACTAATTTCTTCTCCTGGAGTTGCATTGATTCAGTATTACAAATATATAGCACAT CACCTGGGACTTGGCAATCTTTGTTAAAAAAAAATTTCCTTTCTAATGGGATTTGGCCAATTTTGGTAAT GAAGTTAGGATGGTAATGTCTGCATCTGCTAAAGGTAATTTTCTTTTGAGAATTGCTTTCTTTAGTGTTAA GACCTACTCATATTTTGAAGAAATCTTGAGTTAAGTGAGTTCTGAGGCTGCTGGGGGAACCAGATCAAT TCAAAGCTAAATACTTCTTTCAGAAAGGGGCCACTGTGGAAAGTGCTGGTGGGGTTTGCCCTTGATCAA GTGCCTCCATTGTGCTGCAAGGGCTGTAGACAGCAGGGTGGGACAGTCAGTCCTCCGAGCAGCAGGAA

	TCATCCCGTCACTGCAGCCTTCCCATGCTTCCGCCTTTATTCAGAACTTTCTGTGCCACTGTAGATAGCTC AGGCAAAACTATTACCTGGGTATTTATCCACTAATGAGTCACAAGAAAAGGAGTGGATTTGGTAAGAAT AGAGATTTGTTTTATTTAAACCACTTCCCATTACTGACCATTAAAAGCTCACCACTAGAGTTCCTGAAACA GGTGAAACCTGTATGACAGCCCTTCCACTTTGGGGAGCCACGCTTTTGATGTGACAGTACCGCAGAGTG ATTCCCCCACTGAGGATGTCATCATCAAACTCTTCTTTGGTGTGTGAATTATTAGTGGAAAAGACCCAGC TGTAATTAGACCTCCACTGTGTACTTAGCTGGAAGAACATGTTAATTCTGCAATATGTTTCTTGGTTAAAC ATTGCACAGTTCTTACCTCATTTCTGTAAATAAAGTTTTGTGAATCTGTTTTGTATTGTGACAAATTCATAA GATAACATTGATATTTTGATTTGTAATATTTCTAATTGGTAGATTTAATTGAAAAGTAAAATTAATTTATT TTTATATGTTCAGGGGAATTTTAAAGTCAAATCTTTTGTAGATAATTTAAAAAATCAGTGTGGTTTATTTT ACTTATTTAACCCACTGGTTGTTATTCTGTAACAGTTTGTATAAATGGTAAATTTTGAATGTGTTGTTATTT TACCTAGATGTAAAATTCCACATGTATTAAAATGTACAAAATGT
MxA	CCCACACTCTGTCCAGCCCCGTAGACGTGCACGCACACTGTCTGCCCCCGTTCCCGGGTAGCCACTGGAC TGACGACTTGAGTGCTCAGTAGTCAGACTGGATAGTCCGTCTCTGCTTATCCGTTAGCCGTGGTGATTTA GCAGGAAGCTGTGAGAGCAGTTTGGTTTCTAGCATGAAGACAGAGCCCCACCCTCAGATGCACATGAG CTGGCGGGATTGAAGGATGCTGTCTTCGTACTGGGAAAGGGATTTTCAGCCCTCAGAATCGCTCCACCT TGCAGCTCTCCCCTTCTCTGTATTCCTAGAAACTGACACATGCTGAACATCACAGCTTATTTCCTCATTTTT ATAATGTCCCTTCACAAACCCAGTGTTTTAGGAGCATGAGTGCCGTGTGTGTGCGTCCTGTCGGAGCCCT GTCTCCTCTCTGTAATAAACTCATTTCTAGCAGACA
NOD1	AGGATGCTTTCCTGTTCATGGGGTTTTTGCCCTGGAGCCTCAGCAGCAAATGCCACTCTGGGCAGTCTTT TGTGTCAGTGTCTTAAAGGGGCCTGCGCAGGCGGGACTATCAGGAGTCCACTGCCTCCATGATGCAAGC CAGCTTCCTGTGCAGAAGGTCTGGTCGGCAAACTCCCTAAGTACCCGCTACAATTCTGCAGAAAAAGAA TGTGTCTTGCGAGCTGTTGTAGTTACAGTAAATACACTGTGAAGAGACTTTATTGCCTATTATAATTATTT TTATCTGAAGCTAGAGGAATAAAGCTGTGAGCAAACAGAGGAGGCCAGCCTCACCTCATTCCAACACCT GCCATAGGGACCAACGGGAGCGAGTTGGTCACCGCTCTTTTCATTGAAGAGTTGAGGATGTGGCACAA AGTTGGTGCCAAGCTTCTTGAATAAAACGTGTTTGATGGATTAGTATTATACCTGAAATATTTTCTTCCTT CTCAGCACTTTCCCATGTATTGATACTGGTCCCACTTCACAGCTGGAGCACCGGAGTATGTGCAGTGTG GGATTTGACTCCTCCAAGGTTTTGTGGAAAGTTAATGTCAAGGAAAGGATGCACCACGGGCTTTTAATT TTAATCCTGGAGTCTCACTGTCTGCTGGCAAAGATAGAGAATGCCCTCAGCTCTTAGCTGGTCTAAGAAT GACGATGCCTTCAAAATGCTGCTTCCACTCAGGGCTTCTCCTCTGCTAGGCTACCCTCCTCTAGAAGGCT GAGTACCATGGGCTACAGTGTCTGGCCTTGGGAAGAAGTGATTCTGTCCCTCCAAAGAAATAGGGCATG GCTTGCCCCTGTGGCCCTGGCATCCAAATGGCTGCTTTTGTCTCCCTTACCTCGTGAAGAGGGGAAGTCT CTTCCTGCCTCCCAAGCAGCTGAAGGGTGACTAAACGGGCGCCAAGACTCAGGGGATCGGCTGGGAAC TGGGCCAGCAGAGCATGTTGGACACCCCCCACCATGGTGGGCTTGTGGTGGCTGCTCCATGAGGGTGG GGGTGATACTACTAGATCACTTGTCCTCTTGCCAGCTCATTTGTTAATAAAATACTGAAAACACTCTT
PCSK7	CCTCAGGGCCTGACAGTGTGGGACAGGCTCTTCTTTCCCAAAATTAGGGAGCTCTTGACAGAAAGCAGT TCTGATGCTTACATCTGGAATCTGAGGCATCCTCTGACTCCACTCAAAGAGGGTGAGGGCCTTCTTAAGA TACAAATGGTGGAGGATTGCTGCCAGAGAAGTCTGGTCAGAGCCACAGGGTCTGCCTCCAGCCAAACG GGAGCTTTTGGTGAGAAGGTGTTGGACAGGGGATTGGCGCCCCCCTTTGGTTTGGCCTCCATCCTCATC TCTCTTGGGCCAAGCCAGCTGCCTAGGTCCCCCAAGCATGGGGGACCCCTTCCCACATATAAGTTGAGA AGGTGCCTGCCATAGCCAGGAGCGCATCTCAATGGAAACATCACTGGGGTCACTTGGGAAGAGGACTT CGGGGTAGAGGCTGGGAGGAGCCCCTGGACATGCCTGTCCTGAAAGCGGCTGCCTCCATTATCCATTCC CAAGATGCCTGATCAGAAACCAACCATGAATGAACCCCTGGCTCCTTCACCACCCCCACGATTGGTATGA TGCTGCCGGCACAGCTGGGATACACACGGCTCCCCCAGGCCTGAGCTGCTTCACTAGGGAATCCTGCGG CAGGACTGCAGAGCAGATGGCAGATGCACATGTTGGAGGAGAGAGCCTTGGGAGCCACTGCCACTCCA GTCCTGCCACCACCCTGTCTTCCTCTGCAAGTGCTCAGGGAAATGGCCTTCCCGCCGGAGGCCAGCTATC TGCCTGACAGGCTGTGACTCTTCTCTCAACCTTGGCCTTCTCCCCTCTTCTGAGCTAGTTGGTTGAATTTTT TTTAATGCTTAAGATTTGTTTTTCTCTTTTCACAGCAACATTTTCTTGAATTTTTTTCTGCACAGCTTTTCCA AAATAAAAACCTTCCAA
PTPN7	[...]AACATGTGGGGACTACTCAGAGGCAAAGAGGAGCTGCTCCTGCCTCCATGGTTGCTGGCCACTCCC ACCAACTACTCTTAGGGAGGCTAAGCAGTCTCTGTTTTGCTTCCATGGCTCAAATAATACCCTGGGTATG CAGGACCCACTATACCTTGCATTTGCTGAGTACACCTAGAGAGCTTGGCTGTTTCCAAAAACAATCAGGG TCATAACCATCCATGCAGACATGGAGGCTCGGCTGAACCAGGACTCCTCACTGTCTACCTGAGAGAATG AGCACCCCTCATCCATCTCAGCATCAACACAATTTCCAGGGGACCTCAGGTCTACCTCAGGACTGAACGC CACACCTCAGGATTCCTCCTCCTTGAATCTGAGACTGGCTGCCCATTCTGAGATGGGGATGAAGGTAAG ATGCCGCATCACCAGGCACGCCGCCCCTGACAGCTGCCTTGATACCAGCTCTCTGTGGAAACCCCCGAG GAGTTGGATCTGGAGAACAGCTGGGCCTCCTCACTCAGGACTTCTCTCCTGAAGAACACGCAGTGCTAA AACTGAGGATGATTTCCCTAATGCTTCTGCTTGGCCTTATGGAGGAGCTGCTCCTTCCTTACAGCCTTGG GGATGGACTTGCCCACACCTCCACCTCCCCTGAGCCCTGTGAGAGGCACGACTGTCTATGCCAATGAGG CTCGGTGGGGGGCTCTCAAGTGCCTGATCCTGCCCTGGGCTCAGAGCCAGCCCAGAGGGAAGCAACTG CACAGCCCCACAGGCCCTCCCTGGCACTGTCCCCCCAACCCCATCTCAGAGCTCAGAGGGTACAAGCTCC AGAACAGTAACCAAGTGGGAAAATAAAGACTTCTTGGATGACTGACTC
RAB1B	AGGGGCACATGGAGTGGGACAGGAGGGGGCACCTTCTCCAAATGATGTCCCTGGAGGGGGACAGGAGG TGCCTCCCTCTTCCTCTCCTGGGGCATTTGAGTCTGTGGCTTTGGGGTGTCCTGGGCTCCCCATCTCCCTC

	TGGCCCATCTGCCTGCTGCCCCGAGCCGCTATTCTGTCAGGGTCCCTAAGGGAGGACACTCAGGACCTG TGGCCAGGCAGGGCGGGGGCCTGCTCTGCTGCTGCCTCTAGGTGACTTTCCAAGATGCCCCCCCTACAC ACCTTTCTTTGGAACTAGGGCTCTTCTGTCGGTCTCCCTCCCACCCCCATGTGTGCTGCACTGGGTTTCTC TCCTTCCCCTTCTTCCTGCTGTCCTTCTGCCCAAGAGCTGAGGGTCTCCCCGGCCTCTACTGCCCTGGCTG CAGTCAGTGCCCAGGGCCAGGAGTGTGACCAGGGGATCCAGGGCCCTGGGCTGGACCTCAGGACAGC CATGGAGGCCACAGGGGCCCAGCAGCCCACCCTTTCCTCTCCCCACTGCCTCCTCTCCCCTCCCACACTCC CAGCTCCAGCCGTCCAGCTGCGGTGGGGTCTGAGTATATCGAGGGCGGCTGGGCGGGTAGCGGCGCT GGGCCTGTGTCTTGAGCCTGGAGAGAGTCTGCTCCTGCCGCCCTCTGCCCTGCCAGAGACAGACCCACG CGCTGCCTGCCCACCGTGCCCCTTAGTCCCCATGTCAGGCGGAGGCGGAAGGCCCACCGTGCCAGAGG CTGGGCACCAGCCTTAACCCTCTCACTGCTAACACCTCCTCCCTTTCCCCGAGGCAGCACACCTGGCTCAC TCTCCCCTCGGTCTCTGGAGCCCACCAGGGAAGGCCCTCATCCCCTGCCGCTACTTCTCTGGGGAATGTG GGTTCCATCCAGGGTTGGGGGCCTCTCTGCCCACCCACTCTGCACCCAGGATCCTAGTCCCCTGCCCTCT GGTACAGCTGCTTCCTGCAGGAAAGCAAGTCTTTGGTCTCCCTGAGAAGCCATGTCCCTCGTGCTGTCTC TTGCCTGTCCCACCTGTGCCCTGCCCTCCAGCTTGTATTTAAGTCCCTGGGCTGCCCCTTGGGGTGCCCCC CGCTCCCAGGTTCCCCTCTGGTGTCATGTCAGGCATTTTGCAAGGAAAAGCCACTTGGGGAAAGATGGA AAAGGACAAAAAAATTAATAAATTTCCATTGGCCCTCGGGTGAGCTGAGGGTTT
RARB	ACATTTTCTAGCTACTTCAAACATTCCCCAGTACCTTCAGTTCCAGGATTTAAAATGCAAGAAAAAACATT TTTACTGCTGCTTAGTTTTTGGACTGAAAAGATATTAAAACTCAAGAAGGACCAAGAAGTTTTCATATGT ATCAATATATATACTCCTCACTGTGTAACTTACCTAGAAATACAAACTTTTCCAATTTTAAAAAATCAGCC ATTTCATGCAACCAGAAACTAGTTAAAAGCTTCTATTTTCCTCTTTGAACACTCAAGATTGCATGGCAAAG ACCCAGTCAAAATGATTTACCCCTGGTTAAGTTTCTGAAGACTTTGTACATACAGAAGTATGGCTCTGTT CTTTCTATACTGTATGTTTGGTGCTTTCCTTTTGTCTTGCATACTCAAAATAACCATGACACCAAGGTTATG AAATAGACTACTGTACACGTCTACCTAGGTTCAAAAAGATAACTGTCTTGCTTTCATGGAATAGTCAAGA CATCAAGGTAAGGAAACAGGACTATTGACAGGACTATTGTACAGTATGACAAGATAAGGCTGAAGATA TTCTACTTTAGTTAGTATGGAAGCTTGTCTTTGCTCTTTCTGATGCTCTCAAACTGCATCTTTTATTTCATG TTGCCCAGTAAAAGTATACAAATTCCCTGCACTAGCAGAAGAGAATTCTGTATCAGTGTAACTGCCAGTT CAGTTAATCAAATGTCATTTGTTCAATTGTTAATGTCACTTTAAATTAAAAGTGGTTTATTACTTGTTTAAT GACATAACTACACAGTTAGTTAAAAAAAATTTTTTTACAGTAATGATAGCCTCCAAGGCAGAAACACTTT TCAGTGTTAAGTTTTTGTTTACTTGTTCACAAGCCATTAGGGAAATTTCATGGGATAATTAGCAGGCTGG TCTACCACCTGGACCATGTAACTCTAGTGTCCTTCCTGATTCATGCCTGATATTGGGATTTTTTTTTCCAGC CTTCTTGATGCCAAGGGGCTAATTAATATTAACAACTCCCAAAGAAACAGGCATAGAATCTGCCTCCTTT GACCTTGTTCAATCACTATGAAGCAGAGTGAAAGCTGTGGTAGAGTGGTTAACAGATACAAGTGTCAGT TTCTTAGTTCTCATTTAAGCACTAGTGGAATTTTTTTTTTTGATATATTAGCAAGTCTGTGATGTACTTTC ACTGGCTCTGTTTGTACATTGAGATTGTTTGTTTAACAATGCTTTCTATGTTCATATACTGTTTACCTTTTT CCATGGAGTCTCCTGGCAAAGAATAAAATATA
S100B	ATTAGAAAGCAGCCAAACCTTTCCTGTAACAGAGACGGTCATGCAAGAAAGCAGACAGCAAGGGCTTG CAGCCTAGTAGGAGCTGAGCTTTCCAGCCGTGTTGTAGCTAATTAGGAAGCTTGATTTGCTTTGTGATTG AAAAATTGAAAACCTCTTTCCAAAGGCTGTTTTAACGGCCTGCATCATTCTTTCTGCTATATTAGGCCTGT GTGTAAGCTGACTGGCCCCAGGGACTCTTGTTAACAGTAACTTAGGAGTCAGGTCTCAGTGATAAAGCG TGCACCGTGCAGCCCGCCATGGCCGTGTAGACCCTAACCCGGAGGGAACCCTGACTACAGAAATTACCC CGGGGCACCCTTAAAACTTCCACTACCTTTAAAAAACAAAGCCTTATCCAGCATTATTTGAAAACACTGC TGTTCTTTAAATGCGTTCCTCATCCATGCAGATAACAGCTGGTTGGCCGGTGTGGCCCTGCAAGGGCGT GGTGGCTTCGGCCTGCTTCCCGGGATGCGCCTGATCACCAGGTGAACGCTCAGCGCTGGCAGCGCTCCT GGAAAAAGCAACTCCATCAGAACTCGCAATCCGAGCCAGCTCTGGGGGCTCCAGCGTGGCCTCCGTGA CCCATGCGATTCAAGTCGCGGCTGCAGGATCCTTGCCTCCAACGTGCCTCCAGCACATGCGGCTTCCGA GGGCACTACCGGGGGCTCTGAGCCACCGCGAGGGCCTGCGTTCAATAAAAAG
SIRPB1	TGACCCTCAGTCTCTGCTGCCTCCTTCCTTTCCTGAGAGGCTCAGCTTGAGAGAATGAGCCAGTGAGAAG CTTCTCTAGACTTGGCTCCAAACATCTCCCCTCCCAAGACATCTGCCTGCCCACAGGCTCCTGTTGCTCCT TCACACAGACCTGGATGCCCCAGAGCAAGGTCTTCATTCATGGTCCTGAGCAGGGGCCATGGGATTGG GCTCTGGGCACTGACTTAACGGCACCTCCCTAGAAGGCGAGAAACATGCCAAATCTAAACACACCAGGA CTCCCATCCATCGCCTTGAGACTGACCGTAAACCACAGACGCTCTCCAGGTTCTCAAGAGTTATCCTGCC TTCCAGATTCCTGCCTATCCCAACTCCCCAGCCTTGTTGAGGTTCTCTATTGCCTCTTGAATACAAATGCA CTCCCAAAGTGGTTTTAAGAAAATAAAAAGATTATCCTTCCTCTTTGTCTAAGGGTCCTACTCCTCACACT CAGAAACAAAGAAGCTCTCCCTGCTCTCTCTGTGATGGGAACACTAGTTCTAGCATCCTGCAGGCTTCCC CGCCCTGCTGCTCATGGCGGAAATGCTGCCGCAGTCCAAAAGCCTCCTTGACTCCCGAATCCTCCCTGAT GTCTCTTTACACCCCATATTCAATTCTGCCTTCAAAATACTTATGTCCACTCGTGAGATGGTAAGTGTTTA AAAATGGACTCTCTTAAAGGAAAAAAAAAGCTGATTTGTTGTACTTGACAATTTCTGTGGTGTAATCACC CCCAACATGGCCAGTTTCAAGCTACCAGAAGTTTAACAACTGGATTGCAAAATTCCTGAAACTTAACGGT TGGCTTTCAGGGGCCAGTCCAAGCCTGCTGCAGGAGAGCACTGAGTTACATCCCTAACCTGCACACTTCT CACCTCCATCACCCCTCCCTGTCCCGGCCAGCATCATCTCTTCCGGGAACACTTCTGTAGCCTCTGTTGGC TTTCATTTTTCAGCTACAGGGATTTTTGGAAAAGTCAAATTGTATCACTCCTCTGCTTCTTCCCCAACACA GCTGCATGGCTCCCTTCATCCCTCCTTCAAGTCTCTGCTCAATGTCACTTCATTA

SOCS3	GGGAAGGGCGCAAAGGGCATGGGTCGGGAGAGGGGACGCAGGCCCCTCTCCTCCGTGGCACATGGCA CAAGCACAAGAAGCCAACCAGGAGAGAGTCCTGTAGCTCTGGGGGGAAAGAGGGCGGACAGGCCCCT CCCTCTGCCCTCTCCCTGCAGAATGTGGCAGGCGGACCTGGAATGTGTTGGAGGGAAGGGGGAGTACC ACCTGAGTCTCCAGCTTCTCCGGAGGAGCCAGCTGTCCTGGTGGGACGATAGCAACCACAAGTGGATTC TCCTTCAATTCCTCAGCTTCCCCTCTGCCTCCAAACAGGGGACACTTCGGGAATGCTGAACTAATGAGAA CTGCCAGGGAATCTTCAAACTTTCCAACGGAACTTGTTTGCTCTTTGATTTGGTTTAAACCTGAGCTGGTT GTGGAGCCTGGGAAAGGTGGAAGAGAGAGAGGTCCTGAGGGCCCCAGGGCTGCGGGCTGGCGAAGG AAATGGTCACACCCCCCGCCCACCCCAGGCGAGGATCCTGGTGACATGCTCCTCTCCCTGGCTCCGGGG AGAAGGGCTTGGGGTGACCTGAAGGGAACCATCCTGGTGCCCCACATCCTCTCCTCCGGGACAGTCACC GAAAACACAGGTTCCAAAGTCTACCTGGTGCCTGAGAGCCCAGGGCCCTTCCTCCGTTTTAAGGGGGAA GCAACATTTGGAGGGGACGGATGGGCTGGTCAGCTGGTCTCCTTTTCCTACTCATACTATACCTTCCTGT ACCTGGGTGGATGGAGCGGGAGGATGGAGGAGACGGGACATCTTTCACCTCAGGCTCCTGGTAGAGA AGACAGGGGATTCTACTCTGTGCCTCCTGACTATGTCTGGCTAAGAGATTCGCCTTAAATGCTCCCTGTC CCATGGAGAGGGACCCAGCATAGGAAAGCCACATACTCAGCCTGGATGGGTGGAGAGGCTGAGGGAC TCACTGGAGGGCACCAAGCCAGCCCACAGCCAGGGAAGTGGGGAGGGGGGGCGGAAACCCATGCCTC CCAGCTGAACACTGGGAATGTCAGCC
TGM4	CTTGTCTGATGCTGTGGAGCCTTAGTTGAGATTTCAGCATTTCCTACCTTGTGCTTAGCTTTCAGATTATG GATGATTAAATTTGATGACTTATATGAGGGCAGATTCAAGAGCCAGCAGGTCAAAAAGGCCAACACAA CCATAAGCAGCCAGACCCACAAGGCCAGGTCCTGTGCTATCACAGGGTCACCTCTTTTACAGTTAGAAA CACCAGCCGAGGCCACAGAATCCCATCCCTTTCCTGAGTCATGGCCTCAAAAATCAGGGCCACCATTGTC TCAATTCAAATCCATAGATTTCGAAGCCACAGAGTCTCTCCCTGGAGCAGCAGACTATGGGCAGCCCAG TGCTGCCACCTGCTGACGACCCTTGAGAAGCTGCCATATCTTCAGGCCATGGGTTCACCAGCCCTGAAG GCACCTGTCAACTGGAGTGCTCTCTCAGCACTGGGATGGGCCTGATAGAAGTGCATTCTCCTCCTATTGC CTCCATTCTCCTCTCTATCCCTGAAATCCAGGAAGTCCCTCTCCTGGTGCTCCAAGCAGTTTGAAGCCC AATCTGCAAGGACATTTCTCAAGGGCCATGTGGTTTTGCAGACAACCCTGTCCTCAGGCCYGAACTCACC ATAGAGACCCATGTCAGCAAACGGTGACCAGCAAATCCTCTTCCCTTATTCTAAAGCTGCCCCTTGGGAG ACTCCAGGGAGAAGGCATTGCTTCCTCCCTGGTGTGAACTCTTTCTTTGGTATTCCATCCACTATCCTGGC AACTCAAGGCTGCTTCTGTTAACTGAAGCCTGCTCCTTCTTGTTCTGCCCTCCAGAGATTTGCTCAAATGA TCAATAAGCTTTAAATTAAACT
TMED2	AAGCCTCTTCCTGATGATCCCAACTCAGAATTCACTGTTTACCAAACACCTTGGTCATAATAATGTCATTA GTTTCTCCATTTTTATTTTCTGAACTGTACATTCACAACTTATGTTTCTTTGAGATTAATAGATATTGGGGG AAAAACGCCTTTTTAGGAAAATTATAGTGAAAATTTGACAGTTGATTGGCATAATTTCTTGTTTGAATGC TGCCTCCATTATATAGGTCCTTCCAGGAACTCAAACACTGTAAGTGAAATATGGGAGTATAGTTTTTATT ATTTCTTCTTTTCCTTTTGTTTTCATAATATAATGCAGTTTGTTCAGGAAATCAGCACAAAGCCTGATAGTA CTTTACTAAAATGACTGCATTCTTTGGATTCCTTCAGTCTATGGTTCAAGTCACTAAAGATTCATTTTTGTT GAGTCCTTATGAGAAACAGCAGTATGAATCTTGACGGTTTCTGCCCGTCCTAATGGCAGAGCTCTCTGAC TTGGGTGTATGCTGCCAGGCTGGGTACTTTCATACTTTGTTTTCTTGTTTTGCTTTAAAACTACGACTCAG CATACATTTTCCCACATACATTTTTACATTGTACCTTAGGACTCAGTCATCTCCACTTAAATTGATGACACA AGCAGCTAATAACCATTTCTGGGTTTCTGCCTAACCCCCTAATTGTCTGTTAAAGCCAATTCTCTGGGTGT CCCAGTGAGTGGTGGCTTTTTTTCTTTCCACATTGGCACATTCACTTCTCCCACTCTTGGCATGTAAGAAA TAAGCATTTACATAATTGGAAAAATCTGGATTTCTGATGCCAAAGGGTTAAAGCTTCTTGGATTTCATTTC ATTGATATACAGCCACTATTTTATTTTTGATCAGTGGCCTTTGGGCCACTGTTCAGGGTACTGACCATCAG TGTCAGCATTAGGGTTTTGGTTTTTGTTTCTTTTGGGTATTTCTTTTTTGGCACATGTGAATCTTGTTTTGT GTAAAATGAAATTACTTTCTCTTGTTCTCTGATGATGGGTTTAAAATTAAAAGAGCATCCGGTTTTGGTAT GGGGATGATCCAGGATTATGTTGTGACTGATACATATTAGTTACTTGTGCTTTTTTTTTTTTTTTGGATCT TTGCAAGGGCAAAACTACAAGTAACGAGTTTTATATAATTAATTTAAATTTGTTACAGGTTTTCATGTTCA GGATAAACCATACTTCCACCTTGGGTGAGAACACTTGCAACAGTTTATTAATGAGGTGACTTTCACCTTA GGACAACTGTTGCATGCCAAGTTTTTTGTGTGTGTGAAACACTTCAAAACTGATTTAAAAGATGTAAATT TAAAATTGGTTGTATCTAATATGCCCCAGGTTCGGTAA
TRPC5	TCAAGCCCTAATCATCTGTTCTGGAACTCAACAGAAATCTGTAATTTCCTTGCTCTCAGAGGTGACACAG AATATGATTCCCTCACTGCCCCTGCCCCCCAGAAAGGAGAGTGAAACTCTTATTTGCACCATCTTTTATAG CCACATTCTCCATTTTTGTTCTTGTTTTATTATTACTTTCATTATTATTTGCCTTTTTAATACCTATACACACT AAGTCCATCTTACAACCGACTGAAGGGGTGTTGCACCTAATCATCAGAGGTGCAGTTGGGTGCTTAACC TTTTTGCTTTGCTTTTCTCACCCATGCTTCCTTGAAGCCCCAGGTGCCACTTTGCTGGTCTTGTTGCCGCAC AGATTCCTGACCATCCTCAGAATCTCATGCCATTTTCCCGCAGAGCTGAGGGATGTGGTCAGCAGTCCCC ACCAGCTATCAGATAAGGCAAACTACCCTGCCCATCTTTGTTGCCATTCAGTGCTACGCGCTGCCCATGC TGGGTCAATGAACAGCATCAAAGGGAGGCTGAAGAGATTTCAAAGAATTGTCAGCTTGTGGTTTCTGG GTATAAGTGGCTTGTTTCGTTCTTAAATACTACAACTTCTTATTGTGGGGGCTATTGAGTTTTCTTGTTTCT TAAAGATGTGTTAGTTTCCTAATGTGTGCCAATGAAATATTTACCCCATAGTATATGTCATATCTAATAAG TTAGGCGAATTATTTTTCTGTTTGTGTGTTTCAGTTAACTTACTACATTTGAAAATTTGATAGTATCAAAAT [...]TGAAACAACTCTAGGTCTGAGTCCTAGAGATTACATAAATAGTGTGTAGCCCAGAAAAGTAAAATA GGTGTCACGCTGTTTTTTTTTAATGTCAACACCAATAGGAATCCATTTAGATTAATGTATGTAATTTCTGAT AAAAGTAAGAGAAATGAGGAACTTTCGAACTGCAAATATGCCTCCAAACTAGCTTTTGATAAGTGTGGT

| | TTCTGTTATTTGAATGGATTCCCATCTTTGTCTCTAGCCTGGAGAAGAGCAAAATGGAGGGGGAGGGGC
CAGAAATAGGAGGAGGTTTTGAAGAATAAAGCCTCATATCCAGGAAAAAGTGATCAAGTGAAAAAGCT
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TCAAATCAATTTCTCCCCTGCTTCGCTAAGACTGTCATAAAATGGCCTTGACATTTAATCACAGGTTACTT
TCCAGAAAGGTTTCTAAAGTTACAGATTCAGCTTTTCAAATTGTCAAATTCACTTTGAATAATAATAGAAC
CTGGGCTACATTCCTAACTCATATTAACAGCAC |