

**Supplementar Table S1.** List of underexpressed ( $|\text{FC}| \geq 1.50$ ) RNA found in our study.

Underexpressed RNA				
Gene	Fold Change	Chromosome	Gene	RNA type
NOG	-3.75 <sup>f</sup>	chr17	ENSG00000183691.6	protein coding
CCL20	-3.02 <sup>a</sup>	chr2	ENSG00000115009.13	protein coding
LRRN3	-2.73 <sup>c</sup>	chr7	ENSG00000173114.13	protein coding
RNA5SP352	-2.66 <sup>b</sup>	chr11	ENSG00000200278.1	rRNA pseudogene
IGKV1-39	-2.52 <sup>b</sup>	KQ031384.1	ENSG00000282120.1	IG V gene
IGKV1-39	-2.52 <sup>b</sup>	chr2	ENSG00000242371.1	IG V gene
IGLV8-61	-2.43 <sup>b</sup>	chr22	ENSG00000211638.2	IG V gene
TNFRSF17	-2.36 <sup>c</sup>	chr16	ENSG0000048462.11	protein coding
IGKV2D-40	-2.32 <sup>a</sup>	chr2	ENSG00000251039.2	IG V gene
CCR9	-2.31 <sup>f</sup>	chr3	ENSG00000173585.16	protein coding
IGKV1-5	-2.28 <sup>b</sup>	KQ031384.1	ENSG00000282801.1	IG V gene
IGKV1-5	-2.28 <sup>b</sup>	chr2	ENSG00000243466.1	IG V gene
IGKV1-33	-2.26 <sup>b</sup>	chr2	ENSG00000242076.2	IG V gene
IGKV1-33	-2.26 <sup>b</sup>	KQ031384.1	ENSG00000282811.1	IG V gene
PTGS2	-2.22 <sup>a</sup>	chr1	ENSG00000073756.13	protein coding
MXRA8	-2.11 <sup>b</sup>	chr1	ENSG00000162576.17	protein coding
IL1B	-2.08 <sup>a</sup>	chr2	ENSG00000125538.12	protein coding
IGLC6	-2.07 <sup>b</sup>	chr22	ENSG00000222037.5	IG C pseudogene
GLDC	-2.06 <sup>b</sup>	chr9	ENSG00000178445.10	protein coding
CD248	-2.05 <sup>c</sup>	chr11	ENSG00000174807.4	protein coding
HRK	-2.03 <sup>c</sup>	chr12	ENSG00000135116.9	protein coding
IGKV1D-16	-2 <sup>a</sup>	chr2	ENSG00000241244.1	IG V gene
BHLHA15	-1.99 <sup>b</sup>	chr7	ENSG00000180535.4	protein coding
IGHV3-33	-1.98 <sup>c</sup>	chr14	ENSG00000211955.2	IG V gene
IGHV3-33	-1.98 <sup>c</sup>	KI270846.1	ENSG00000282642.1	IG V gene
AL132996.1	-1.98 <sup>b</sup>	chr6	ENSG00000260271.3	lncRNA
MAILR	-1.98 <sup>b</sup>	chr8	ENSG00000253320.7	lncRNA
LINC00487	-1.96 <sup>a</sup>	chr2	ENSG00000205837.7	lncRNA
CPA5	-1.94 <sup>a</sup>	chr7	ENSG00000158525.16	protein coding
CACHD1	-1.94 <sup>b</sup>	chr1	ENSG00000158966.16	protein coding
LINC02295	-1.93 <sup>c</sup>	chr14	ENSG00000258511.1	lncRNA
IGLV1-47	-1.93 <sup>b</sup>	chr22	ENSG00000211648.2	IG V gene
JCHAIN	-1.93 <sup>b</sup>	chr4	ENSG00000132465.12	protein coding
FGF14-AS2	-1.91 <sup>a</sup>	chr13	ENSG00000272143.1	lncRNA
AC097634.1	-1.91 <sup>b</sup>	chr3	ENSG00000270562.1	lncRNA
ASIC1	-1.9 <sup>b</sup>	chr12	ENSG00000110881.12	protein coding
EVPL	-1.89 <sup>b</sup>	chr17	ENSG00000167880.8	protein coding
ROBO1	-1.89 <sup>a</sup>	chr3	ENSG00000169855.20	protein coding
IGLV3-10	-1.89 <sup>b</sup>	chr22	ENSG00000211669.3	IG V gene
ZNF285	-1.87 <sup>c</sup>	chr19	ENSG00000267508.6	protein coding
FOXJ1	-1.87 <sup>a</sup>	chr17	ENSG00000129654.8	protein coding
IGKV4-1	-1.85 <sup>b</sup>	chr2	ENSG00000211598.2	IG V gene
IGKV3-11	-1.85 <sup>b</sup>	chr2	ENSG00000241351.3	IG V gene
IGKV3-11	-1.85 <sup>b</sup>	KQ031384.1	ENSG00000282823.1	IG V gene
AC234301.1	-1.81 <sup>b</sup>	KI270846.1	ENSG00000278082.3	IG V gene
AC010331.1	-1.79 <sup>a</sup>	chr19	ENSG00000277383.1	lncRNA
SFRP5	-1.77 <sup>a</sup>	chr10	ENSG00000120057.5	protein coding
NKX3-1	-1.77 <sup>a</sup>	chr8	ENSG00000167034.10	protein coding
IGLC3	-1.75 <sup>a</sup>	chr22	ENSG00000211679.2	IG C gene
LINC02848	-1.75 <sup>b</sup>	chr7	ENSG00000226581.2	lncRNA
WNT16	-1.71 <sup>a</sup>	chr7	ENSG00000002745.13	protein coding
LEF1-AS1	-1.7 <sup>c</sup>	chr4	ENSG00000232021.7	lncRNA
LINC02132	-1.7 <sup>a</sup>	chr16	ENSG00000268804.1	lncRNA
C17orf100	-1.69 <sup>c</sup>	chr17	ENSG00000256806.6	protein coding
IGKJ5	-1.69 <sup>b</sup>	chr2	ENSG00000211593.2	IG J gene
IGLV2-23	-1.68 <sup>b</sup>	chr22	ENSG00000211660.3	IG V gene
IGLV2-14	-1.68 <sup>a</sup>	chr22	ENSG00000211666.2	IG V gene
CR2	-1.67 <sup>b</sup>	chr1	ENSG00000117322.18	protein coding
IGKV3D-11	-1.67 <sup>a</sup>	chr2	ENSG00000211632.4	IG V gene
IGLL5	-1.67 <sup>b</sup>	chr22	ENSG00000254709.8	protein coding
NRCAM	-1.67 <sup>a</sup>	chr7	ENSG00000091129.21	protein coding
RNU4-62P	-1.67 <sup>a</sup>	chr3	ENSG00000222057.1	snRNA
IGHM	-1.66 <sup>b</sup>	KI270846.1	ENSG00000282657.3	IG C gene
IGHM	-1.66 <sup>b</sup>	chr14	ENSG00000211899.10	IG C gene
TLR10	-1.65 <sup>b</sup>	chr4	ENSG00000174123.11	protein coding
AC009123.1	-1.65 <sup>a</sup>	chr16	ENSG00000250685.7	lncRNA
AL390719.1	-1.65 <sup>a</sup>	chr1	ENSG00000217801.10	transcribed unprocessed
PLLP	-1.64 <sup>b</sup>	chr16	ENSG00000102934.10	protein coding

MIR3142HG	-1.64 <sup>b</sup>	chr5	ENSG00000253522.6	lncRNA
IGLJ2	-1.63 <sup>a</sup>	chr22	ENSG00000211676.2	IG J gene
TTC24	-1.62 <sup>def</sup>	chr1	ENSG00000187862.13	protein coding
RNF157-AS1	-1.62 <sup>b</sup>	chr17	ENSG00000267128.2	lncRNA
AMN	-1.61 <sup>c</sup>	chr14	ENSG00000166126.11	protein coding
AC009237.14	-1.6 <sup>a</sup>	chr2	ENSG00000272913.1	lncRNA
IGLV2-8	-1.6 <sup>a</sup>	chr22	ENSG00000278196.3	IG V gene
IGKV3-20	-1.58 <sup>a</sup>	KQ031384.1	ENSG00000282402.1	IG V gene
IGKV3-20	-1.58 <sup>a</sup>	chr2	ENSG00000239951.1	IG V gene
ZNF2	-1.58 <sup>b</sup>	chr2	ENSG00000275111.5	protein coding
IGLV2-11	-1.58 <sup>a</sup>	chr22	ENSG00000211668.2	IG V gene
AL442128.2	-1.58 <sup>b</sup>	chr13	ENSG00000277767.1	lncRNA
IGLV3-9	-1.58 <sup>a</sup>	chr22	ENSG00000211670.2	IG V gene
KLHL33	-1.58 <sup>a</sup>	chr14	ENSG00000185271.9	protein coding
IGKV2-28	-1.57 <sup>a</sup>	KQ031384.1	ENSG00000282025.1	IG V gene
IGKV2-28	-1.57 <sup>a</sup>	chr2	ENSG00000244116.3	IG V gene
LIMD1-AS1	-1.57 <sup>c</sup>	chr3	ENSG00000230530.2	lncRNA
CHAC2	-1.56 <sup>a</sup>	chr2	ENSG00000143942.5	protein coding
C12orf60	-1.56 <sup>a</sup>	chr12	ENSG00000182993.5	protein coding
TRPM5	-1.56 <sup>a</sup>	chr11	ENSG00000070985.13	protein coding
AL034550.2	-1.56 <sup>b</sup>	chr20	ENSG00000277301.1	lncRNA
AEBP1	-1.55 <sup>c</sup>	chr7	ENSG00000106624.11	protein coding
AC103563.7	-1.55 <sup>b</sup>	chr2	ENSG00000233850.1	lncRNA
ZNF215	-1.54 <sup>a</sup>	chr11	ENSG00000149054.16	protein coding
IGKC	-1.54 <sup>a</sup>	chr2	ENSG00000211592.8	IG C gene
CISH	-1.53 <sup>b</sup>	chr3	ENSG00000114737.16	protein coding
IL6R-AS1	-1.52 <sup>a</sup>	chr1	ENSG00000228013.1	lncRNA
BCL7A	-1.52 <sup>b</sup>	chr12	ENSG00000110987.9	protein coding
SLC35F3	-1.52 <sup>b</sup>	chr1	ENSG00000183780.13	protein coding
MIR4458HG	-1.52 <sup>b</sup>	chr5	ENSG00000247516.8	lncRNA
SIGLEC6	-1.52 <sup>a</sup>	chr19	ENSG00000105492.16	protein coding
IGKJ4	-1.51 <sup>a</sup>	chr2	ENSG00000211594.2	IG J gene
ZNF667-AS1	-1.51 <sup>a</sup>	chr19	ENSG00000166770.11	lncRNA
IGLV2-5	-1.51 <sup>a</sup>	chr22	ENSG00000253234.1	IG V pseudogene
AMACR	-1.51 <sup>b</sup>	chr5	ENSG00000242110.8	protein coding
IGLV6-57	-1.5 <sup>a</sup>	chr22	ENSG00000211640.4	IG V gene
CNFN	-1.5 <sup>a</sup>	chr19	ENSG00000105427.10	protein coding
E2F5	-1.5 <sup>b</sup>	chr8	ENSG00000133740.11	protein coding
RHPN1	-1.5 <sup>b</sup>	chr8	ENSG00000158106.14	protein coding
CD180	-1.5 <sup>b</sup>	chr5	ENSG00000134061.5	protein coding
PDE4DIPP6	-1.5 <sup>a</sup>	chr1	ENSG00000231551.8	transcribed unprocessed
CETN3	-1.5 <sup>b</sup>	chr5	ENSG00000153140.9	protein coding
CCR12P	-1.5 <sup>b</sup>	chr13	ENSG00000238241.2	transcribed unprocessed
IGKJ3	-1.49 <sup>a</sup>	chr2	ENSG00000211595.2	IG J gene
IGLV3-1	-1.48 <sup>a</sup>	chr22	ENSG00000211673.2	IG V gene
IGLC2	-1.47 <sup>a</sup>	chr22	ENSG00000211677.2	IG C gene
PPIAP45	-1.43 <sup>a</sup>	chr12	ENSG00000258116.1	processed pseudogene
TRAV13-2	-1.41 <sup>b</sup>	chr14	ENSG00000211791.2	TR V gene
IGLV3-19	-1.4 <sup>a</sup>	chr22	ENSG00000211663.2	IG V gene
MIR3671	-1.39 <sup>a</sup>	chr1	ENSG00000265996.1	miRNA
AC104581.4	-1.38 <sup>a</sup>	chr17	ENSG00000280046.1	TEC
ANKRD36BP2	-1.36 <sup>a</sup>	chr2	ENSG00000230006.7	transcribed unprocessed
TRAV4	-1.32 <sup>a</sup>	chr14	ENSG00000211778.2	TR V gene
TRAV12-3	-1.3 <sup>a</sup>	chr14	ENSG00000211794.3	TR V gene
AL031009.1	-1.29 <sup>a</sup>	chr16	ENSG00000278987.1	TEC
HSD17B7P2	-1.26 <sup>a</sup>	chr10	ENSG00000099251.14	transcribed unprocessed
SUZ12P1	-1.14 <sup>a</sup>	chr17	ENSG00000264538.6	transcribed unprocessed
IGKV2-30	-1.05 <sup>a</sup>	KQ031384.1	ENSG00000281933.1	IG V gene
IGKV2-30	-1.05 <sup>a</sup>	chr2	ENSG00000243238.1	IG V gene
RNU4-2	-1.03 <sup>b</sup>	chr12	ENSG00000202538.1	snRNA
RNU5A-1	-1.03 <sup>a</sup>	chr15	ENSG00000199568.1	snRNA
RNU4-1	-1.02 <sup>b</sup>	chr12	ENSG00000200795.1	snRNA
PCBP2P2	1.15 <sup>a</sup>	chr8	ENSG00000253341.1	processed pseudogene
EIF4A1P10	1.23 <sup>a</sup>	chrX	ENSG00000229132.2	processed pseudogene
EIF4BP6	1.23 <sup>b</sup>	chr7	ENSG00000197258.5	processed pseudogene
DGKZP1	1.25 <sup>a</sup>	chr13	ENSG00000179611.3	processed pseudogene
TPH1P1	1.28 <sup>a</sup>	chr1	ENSG00000226415.1	processed pseudogene
EIF4BP3	1.29 <sup>b</sup>	chr9	ENSG00000224546.2	processed pseudogene
MIR7848	1.3 <sup>a</sup>	chr8	ENSG00000276961.1	miRNA
EEF1A1P5	1.31 <sup>a</sup>	chr9	ENSG00000196205.8	processed pseudogene
GAPDHP1	1.31 <sup>a</sup>	chrX	ENSG00000228232.1	processed pseudogene
ANXA2P2	1.33 <sup>b</sup>	chr9	ENSG00000231991.4	processed pseudogene

<b>PTMAP2</b>	1.35 <sup>a</sup>	chr5	ENSG00000197744.5	processed pseudogene
<b>AC100827.2</b>	1.35 <sup>b</sup>	chr15	ENSG00000260144.1	unprocessed pseudogene
<b>AC016739.1</b>	1.35 <sup>a</sup>	chr2	ENSG00000218175.2	processed pseudogene
<b>EEF1DP7</b>	1.36 <sup>a</sup>	chr17	ENSG00000263883.1	transcribed processed
<b>MIR5094</b>	1.41 <sup>a</sup>	chr15	ENSG00000264966.1	miRNA
<b>RN7SKP296</b>	1.44 <sup>a</sup>	chr3	ENSG00000223117.1	misc RNA
<b>MSNP1</b>	1.45 <sup>b</sup>	chr5	ENSG00000251593.1	processed pseudogene
<b>YWHAZP2</b>	1.45 <sup>a</sup>	chr2	ENSG00000213236.3	processed pseudogene
<b>EEF1A1P10</b>	1.46 <sup>a</sup>	chr7	ENSG00000243746.1	processed pseudogene
<b>EEF1A1P6</b>	1.47 <sup>b</sup>	chr7	ENSG00000233476.3	processed pseudogene
<b>FTLP3</b>	1.47 <sup>b</sup>	chr20	ENSG00000226608.3	processed pseudogene
<b>XRCC6P2</b>	1.49 <sup>a</sup>	chrX	ENSG00000234825.3	processed pseudogene
Padj: a<0.05; b<0.01; c<0.001; d<0.0001; e<0.00001; f<0.000001; FC: fold change; Gene ID				

**Supplementar Table S2.** List of overexpressed ( $|FC| \geq 1.50$ ) RNA found in our study.

Overexpressed RNA				
Gene	Fold Change	Chromosome	Gene	RNA Type
MT-TW	66.69 <sup>b</sup>	chrM	ENSG00000210117.1	Mt tRNA
MT-TT	48.33 <sup>a</sup>	chrM	ENSG00000210195.2	Mt tRNA
MT-ND5	20.89 <sup>a</sup>	chrM	ENSG00000198786.2	protein coding
MTCO1P12	19.42 <sup>a</sup>	chr1	ENSG00000237973.1	unprocessed pseudogene
CA1	6.24 <sup>b</sup>	chr8	ENSG00000133742.14	protein coding
ADAMTS2	5.36 <sup>c</sup>	chr5	ENSG00000087116.16	protein coding
RPLP0P2	3.13 <sup>c</sup>	chr11	ENSG00000243742.5	transcribed proc pseudogene
PPBP	3.11 <sup>a</sup>	chr4	ENSG00000163736.4	protein coding
IL1R2	2.95 <sup>b</sup>	chr2	ENSG00000115590.14	protein coding
MAP1B	2.39 <sup>b</sup>	chr5	ENSG00000131711.15	protein coding
CEACAM8	2.36 <sup>b</sup>	chr19	ENSG00000124469.12	protein coding
AL355472.1	2.3 <sup>b</sup>	chr1	ENSG00000235605.1	proc pseudogene
ITGB3	2.24 <sup>a</sup>	chr17	ENSG00000259207.9	protein coding
ITGA2B	2.21 <sup>c</sup>	chr17	ENSG00000005961.19	protein coding
MAOB	2.05 <sup>a</sup>	chrX	ENSG00000069535.14	protein coding
FIGN	2.05 <sup>a</sup>	chr2	ENSG00000182263.14	protein coding
EPGN	1.98 <sup>a</sup>	chr4	ENSG00000182585.10	protein coding
AQP10	1.97 <sup>b</sup>	chr1	ENSG00000143595.13	protein coding
MYL9	1.96 <sup>b</sup>	chr20	ENSG00000101335.10	protein coding
EPB42	1.87 <sup>a</sup>	chr15	ENSG00000166947.15	protein coding
OSBP2	1.87 <sup>b</sup>	chr22	ENSG00000184792.16	protein coding
ARG1	1.87 <sup>a</sup>	chr6	ENSG00000118520.15	protein coding
CEACAM6	1.87 <sup>a</sup>	chr19	ENSG00000086548.9	protein coding
LCN2	1.86 <sup>a</sup>	chr9	ENSG00000148346.12	protein coding
COL4A2	1.82 <sup>a</sup>	chr13	ENSG00000134871.19	protein coding
RNF11	1.79 <sup>a</sup>	chr1	ENSG00000123091.5	protein coding
AC025048.6	1.79 <sup>b</sup>	chr17	ENSG00000280852.2	transcribed proc pseudogene
TRHDE	1.78 <sup>a</sup>	chr12	ENSG00000072657.9	protein coding
AC106865.1	1.77 <sup>a</sup>	chr4	ENSG00000250771.2	transcribed unprocessed
SAMD14	1.76 <sup>b</sup>	chr17	ENSG00000167100.15	protein coding
PROS1	1.76 <sup>a</sup>	chr3	ENSG00000184500.16	protein coding
GAPDHP65	1.75 <sup>b</sup>	chrX	ENSG00000235587.2	proc pseudogene
XK	1.75 <sup>b</sup>	chrX	ENSG00000047597.7	protein coding
TUBBP1	1.71 <sup>b</sup>	chr8	ENSG00000127589.4	transcribed proc pseudogene
ALAS2	1.7 <sup>a</sup>	chrX	ENSG00000158578.21	protein coding
LINC02701	1.68 <sup>a</sup>	chr11	ENSG00000250508.1	lncRNA
SAP30	1.67 <sup>c</sup>	chr4	ENSG00000164105.4	protein coding
DMTN	1.66 <sup>b</sup>	chr8	ENSG00000158856.18	protein coding
PCSK6	1.65 <sup>b</sup>	chr15	ENSG00000140479.18	protein coding
CMTM5	1.65 <sup>a</sup>	chr14	ENSG00000166091.21	protein coding
PRKAR2B	1.64 <sup>b</sup>	chr7	ENSG00000005249.13	protein coding
SPTB	1.64 <sup>b</sup>	chr14	ENSG00000070182.21	protein coding
SMOX	1.63 <sup>a</sup>	chr20	ENSG00000088826.18	protein coding
P2RY1	1.63 <sup>c</sup>	chr3	ENSG00000169860.7	protein coding
YWHAZP10	1.62 <sup>b</sup>	chrX	ENSG00000217624.2	proc pseudogene
MPO	1.62 <sup>a</sup>	chr17	ENSG00000005381.8	protein coding
RPL24P4	1.62 <sup>a</sup>	chr6	ENSG00000181524.6	proc pseudogene
VWF	1.61 <sup>b</sup>	chr12	ENSG00000110799.14	protein coding
AC132872.2	1.61 <sup>c</sup>	chr17	ENSG00000264548.1	lncRNA
MIR3605	1.61 <sup>a</sup>	chr1	ENSG00000284154.1	miRNA
CTDSPL	1.6 <sup>b</sup>	chr3	ENSG00000144677.15	protein coding
PLXNB3	1.59 <sup>a</sup>	chrX	ENSG00000198753.12	protein coding
CD9	1.58 <sup>a</sup>	chr12	ENSG00000010278.15	protein coding
SPX	1.58 <sup>a</sup>	chr12	ENSG00000134548.11	protein coding
TRIM58	1.56 <sup>a</sup>	chr1	ENSG00000162722.9	protein coding
MMRN1	1.54 <sup>a</sup>	chr4	ENSG00000138722.10	protein coding
PARD6G	1.53 <sup>a</sup>	chr18	ENSG00000178184.16	protein coding
FAXDC2	1.53 <sup>a</sup>	chr5	ENSG00000170271.11	protein coding
GOLGA6L5P	1.52 <sup>b</sup>	chr15	ENSG00000230373.8	transcribed unprocessed
AC093849.4	1.52 <sup>b</sup>	chr4	ENSG00000288025.1	lncRNA
CRYZL2P-	1.51 <sup>a</sup>	chr1	ENSG00000254154.8	lncRNA
AC134407.2	1.5 <sup>a</sup>	chr17	ENSG00000279573.1	TEC
MSR1	1.5 <sup>b</sup>	chr8	ENSG00000038945.15	protein coding

Padj: a<0.05; b<0.01; c<0.001; d<0.0001; e<0.00001; f<0.000001; FC: fold change; Gene ID