

**Table S1:** Accession numbers of the microarray profiles used to derive the compendium of immune genes

<b>DB source</b>	<b>DATASET ID</b>	<b>Publication (PMID)</b>	<b>Platform (s)</b>	<b>Study description</b>
ArrayExpress	<a href="#">E-MEXP-380</a>	<a href="#">16966385</a>	HG-U133A	Human NK cells were sorted into CD56dim and CD56bright NK cell subpopulations. Gene profiling was performed, in order to define characteristics of both populations. The experiment contains systematically annotated and consistently normalized human gene expression data matrix of 5372 samples integrated from 206 public experiments of a HG-U133A array platform, representing 369 different cell and tissue types, disease states and cell lines
ArrayExpress	<a href="#">E-MTAB-62</a>	<a href="#">20379172</a>	HG-U133A	Transcription profiling of human precursor-B-cell differentiation: five subsets representing the main stages of human precursor-B-cell differentiation and CD34+lin- cord blood cells were purified.
ArrayExpress	<a href="#">E-MEXP-384</a>	<a href="#">21680796</a>	HG-U133A	Transcription profiling of human memory T cells stimulated with PhI p-extract in healthy and allergic individuals
ArrayExpress	<a href="#">E-MEXP-243</a>	<a href="#">15746248</a>	HG-U133A	The data contains 79 different human tissues and cell types with 2 replicates per tissue/cell type.
ArrayExpress	<a href="#">E-TABM-145</a>	<a href="#">19274049</a>	HG-U133A	Expression profiling studies on colon cancer comparing tumoral and normal biopsies from a series of patients in order to identify molecular biomarkers.
ArrayExpress	<a href="#">E-MTAB-57</a>	<a href="#">16919171</a>	HG-U133A	Expression profiles of twelve different types of human leukocytes from peripheral blood and bone marrow. The gene expression profiles are performed before and after treatment to induce activation and/or differentiation.
GEO	<a href="#">GSE22886</a>	<a href="#">15789058</a>	HG-U133A	Gene-expression profiles of non-tumor-reactive CD8+ T cells
GEO	<a href="#">GSE11188</a>	<a href="#">19435912</a>	HG-U133A	Gene transcription profiles for the major leukocyte types in humans: Different leukocyte subsets were either isolated or differentiated from human blood to obtain consistently >95% pure populations. Gene profiles for activated effector cells such as macrophages, neutrophils and mast cells were also generated.
GEO	<a href="#">GSE3982</a>	<a href="#">16339519</a>	HG-U133A	Gene expression is measured in nine stages of T cell development.
GEO	<a href="#">GSE22601</a>	<a href="#">15928199</a>	HG-U133A	

GEO	<a href="#">GSE13017</a>	<a href="#">19453521</a>	HG-U133A	Homo sapiens CD4+CD25- and CD4+CD25hi T cells were sorted from healthy individual donors and analyzed ex vivo (non-activated) or 1 day following T-cell receptor activation using anti-CD3/IL2 and anti-CD3/-CD28/IL2 (activated), respectively.
GEO	<a href="#">GSE1460</a>	<a href="#">15210650</a>	HG-U133A	Subpopulations of human fetal thymocyte and circulating naïve T cells were obtained through FACS sorting.
GEO	<a href="#">GSE4571</a>	<a href="#">16836768</a>	HG-U133A	Expression profiles of human Treg cells obtained from peripheral blood by cell sorting and their naïve controls.
GEO	<a href="#">GSE24634</a>	<a href="#">21347372</a>	HG-U133A	Expression data from developing regulatory T cells
GEO	<a href="#">GSE36476</a>	<a href="#">22434910</a>	HG-U133A	Gene expression signatures in elderly CD4 T cell responses
GEO	<a href="#">GSE17354</a>	<a href="#">19652199</a>	HG-U133A	Gene expression profiling of CD4+ and CD8+ T-cells from gene therapy treated ADA patients and from healthy controls
GEO	<a href="#">GSE1133</a>	<a href="#">15075390</a>	HG-U133A	Tissue-specific pattern of mRNA expression in 79 human and mouse tissues
GEO	<a href="#">GSE3996</a>	<a href="#">17573725</a>	HG-U133A	Differential gene expression in regulatory T-cells after activation by temporary contact with dendritic cells
GEO	<a href="#">GSE1323</a>	<a href="#">16531451</a>	HG-U133A	Expression profiling of the SW480 and SW620 colon cancer cells lines derived from a primary tumor and a corresponding metastasis from the same individual.
GEO	<a href="#">GSE24514</a>	<a href="#">21544814</a>	HG-U133A	Expression data from human MSI colorectal cancer and normal colonic mucosa
GEO	<a href="#">GSE6740</a>	<a href="#">17251300</a>	HG-U133A	Comparison of transcriptional profiles of CD4+ and CD8+ T cells from HIV-infected patients and uninfected control group-
GEO	<a href="#">GSE8835</a>	<a href="#">15965501</a>	HG-U133A	CD4 T cells and CD8 T cells were obtained from peripheral blood mononuclear cells of previously untreated patients with CLL and healthy individuals.
GEO	<a href="#">GSE13411</a>	<a href="#">19124732</a>	HG-U133A	Four subsets of human splenic B cells (naïve, IgM-memory, Ig isotype switched memory and plasma cells); sort-purified and analysed immediately ex vivo; performed in duplicate.
GEO	<a href="#">GSE5580</a>	<a href="#">17032758</a>	HG-U133A	Gene expression profiling of circulating total blood leukocytes, T-Cells, and Monocytes in severe trauma patients and healthy subjects.
GEO	<a href="#">GSE6477</a>	<a href="#">17409404</a>	HG-U133A	Expression data from different stages of plasma cell neoplasm.
GEO	<a href="#">GSE4045</a>	<a href="#">16819509</a>	HG-U133A	Expression profile of serrated and conventional colorectal tumors
GEO	<a href="#">GSE2328</a>	<a href="#">15781863</a>	HG-U133A	Application of genome-wide expression analysis to human health and disease

GEO	<a href="#">GSE11430</a>	<a href="#">18578872</a>	HG-U133_Plus_2	Gene expression profiles of human monocytes and monocyte-derived-macrophages.
GEO	<a href="#">GSE2509</a>	<a href="#">16531451</a>	HG-U133A	Two colon cancer cell lines are profiled: SW480 and SW620.
GEO	<a href="#">GSE24759</a>	<a href="#">21241896</a>	U133AAofAv2	38 distinct hematopoietic cell states based on cell surface marker expression, representing hematopoietic stem and progenitor cells, terminally differentiated cells, and intermediate states are defined.
GEO	<a href="#">GSE41258</a>	<a href="#">19359472</a>	HG-U133A	390 expression arrays from colorectal cancer patients
GEO	<a href="#">GSE28726</a>	<a href="#">21632718</a>	HG-U133_Plus_2	Microarray analysis was performed to determine the transcriptional profiles of NKT, CD1d-aGC+ Va24-, and CD4 T cells.
GEO	<a href="#">GSE30687</a>	<a href="#">21985787</a>	HG-U133A_2	Gene profiling of metastatic colorectal cancer cells (L1 and L2) and non-metastatic colorectal cancer cells (sw620 and sw480)
GEO	<a href="#">GSE35340</a>	<a href="#">23074278</a>	HG-U133_Plus_2	Transcriptome analysis of highly purified CD207+/CD1a+ Langerhans cell histiocytosis (LCH) cells derived from different locations and disease courses and three major human dendritic cell lineages: epidermal Langerhans cells, myeloid dendritic cells (mDC1) and plasmacytoid dendritic cells (pDC).
GEO	<a href="#">GSE49910</a>	<a href="#">24053356</a>	HG-U133_Plus_2	Meta-analysis of publically available human primary cell data
GEO	<a href="#">GSE51540</a>	<a href="#">24492460</a>	HG-U133_Plus_2	Cassical Th17 cells (Th17) or those generated in the presence of the inhibitor (iTh17) are sorted and analyzed by full transcriptome microarray analysis.

---

**Table S2:** List of immune metagenes.

<b>Name</b>	<b>CellType</b>
AKNA	Activated B cells
ARHGAP25	Activated B cells
CCL21	Activated B cells
CD180	Activated B cells
CD2	Activated B cells
CD27	Activated B cells
CD37	Activated B cells
CD38	Activated B cells
CLEC17A	Activated B cells
CLEC9A	Activated B cells
CLECL1	Activated B cells
FAIM3	Activated B cells
FAM65B	Activated B cells
GIMAP4	Activated B cells
MAP4K1	Activated B cells
PAX5	Activated B cells
TNFRSF17	Activated B cells
TRAF3IP3	Activated B cells
ANLN	Activated CD4
BRIP1	Activated CD4
BUB1B	Activated CD4
CASC5	Activated CD4
CCNB1	Activated CD4
CCNB2	Activated CD4
CCNE2	Activated CD4
CEP55	Activated CD4
CKAP2L	Activated CD4
DLGAP5	Activated CD4
DTL	Activated CD4
E2F8	Activated CD4
ECT2	Activated CD4
ESCO2	Activated CD4
EXO1	Activated CD4
EXOC6	Activated CD4
FBXO5	Activated CD4
FIGNL1	Activated CD4
HELLS	Activated CD4
HMMR	Activated CD4
IARS	Activated CD4
KIF11	Activated CD4
KIF18A	Activated CD4
KIF20A	Activated CD4
KNTC1	Activated CD4
MAD2L1	Activated CD4
MASTL	Activated CD4
MTHFD2	Activated CD4
NCAPG2	Activated CD4

NCAPH	Activated CD4
NEIL3	Activated CD4
NUF2	Activated CD4
PRC1	Activated CD4
PSAT1	Activated CD4
RTKN2	Activated CD4
ADRM1	Activated CD8
AHSA1	Activated CD8
C1GALT1C1	Activated CD8
CCT5	Activated CD8
CCT6B	Activated CD8
CETN3	Activated CD8
CSE1L	Activated CD8
EIF2S1	Activated CD8
GAL	Activated CD8
GEMIN6	Activated CD8
GPT2	Activated CD8
KIAA0101	Activated CD8
MND1	Activated CD8
MPZL1	Activated CD8
MRPS16	Activated CD8
PCNA	Activated CD8
PTRH2	Activated CD8
RFC5	Activated CD8
SPC25	Activated CD8
TIMM13	Activated CD8
TIMM8B	Activated CD8
TK1	Activated CD8
TUBB	Activated CD8
TXNDC17	Activated CD8
ADAM19	Central memory CD4
AHNAK	Central memory CD4
AIM2	Central memory CD4
COL4A1	Central memory CD4
CYLD	Central memory CD4
DPEP2	Central memory CD4
EPHA4	Central memory CD4
FYN	Central memory CD4
IL6R	Central memory CD4
IPCEF1	Central memory CD4
KLF10	Central memory CD4
MAL	Central memory CD4
MALT1	Central memory CD4
NXN	Central memory CD4
OPTN	Central memory CD4
PLCL2	Central memory CD4
PNRC1	Central memory CD4
SMAD4	Central memory CD4
SPOCK2	Central memory CD4
TRIB2	Central memory CD4

TXK	Central memory CD4
ADAM23	Central memory CD8
ATP2B4	Central memory CD8
BCL2L11	Central memory CD8
CD300A	Central memory CD8
CD80	Central memory CD8
CHN1	Central memory CD8
F2R	Central memory CD8
F8	Central memory CD8
GABARAPL1	Central memory CD8
GPR183	Central memory CD8
KLRK1	Central memory CD8
MSC	Central memory CD8
PYHIN1	Central memory CD8
RCAN2	Central memory CD8
RGS1	Central memory CD8
SLAMF1	Central memory CD8
SLFN11	Central memory CD8
ZEB2	Central memory CD8
BST2	Cytotoxic cells
BTN3A2	Cytotoxic cells
IL10RA	Cytotoxic cells
KLRB1	Cytotoxic cells
LAT2	Cytotoxic cells
LILRA2	Cytotoxic cells
SELL	Cytotoxic cells
SLAMF6	Cytotoxic cells
SLAMF7	Cytotoxic cells
C1QC	DC
CCDC88A	DC
CCL13	DC
CCL3L1	DC
CCL3L3	DC
CD300E	DC
CD86	DC
CLEC1A	DC
CLEC4C	DC
CLEC5A	DC
CLIC2	DC
CSF2RA	DC
FAM49A	DC
FCGR1A	DC
FN1	DC
FSTL1	DC
GPR109B	DC
GPX3	DC
HLA-DQA2	DC
INHBA	DC
LGMN	DC
NGFR	DC

PDGFRL	DC
PDPN	DC
PRKAR2B	DC
SIGLEC1	DC
SIGLEC5	DC
SLAMF9	DC
STAB1	DC
THBD	DC
TNFAIP2	DC
TTYH2	DC
UBD	DC
VCAM1	DC
BMI1	Effector memory CD4
CASP3	Effector memory CD4
CNOT10	Effector memory CD4
COPB2	Effector memory CD4
DARS	Effector memory CD4
EXOSC9	Effector memory CD4
EZH2	Effector memory CD4
GDE1	Effector memory CD4
IFT74	Effector memory CD4
KLF5	Effector memory CD4
NDUFB9	Effector memory CD4
NUP205	Effector memory CD4
SHCBP1	Effector memory CD4
XRCC6	Effector memory CD4
APOBEC3H	Effector memory CD8
ARHGAP10	Effector memory CD8
ATP10D	Effector memory CD8
BIRC3	Effector memory CD8
C3AR1	Effector memory CD8
CCL4	Effector memory CD8
CD244	Effector memory CD8
CD55	Effector memory CD8
CFLAR	Effector memory CD8
CMKLR1	Effector memory CD8
DAPP1	Effector memory CD8
DFNB31	Effector memory CD8
DRAM1	Effector memory CD8
EFNA5	Effector memory CD8
FCGR2C	Effector memory CD8
FCGR3A	Effector memory CD8
FCRL6	Effector memory CD8
FGR	Effector memory CD8
GPR114	Effector memory CD8
GZMH	Effector memory CD8
HAPLN3	Effector memory CD8
HLA-DMB	Effector memory CD8
HLA-DPA1	Effector memory CD8
HLA-DPB1	Effector memory CD8

IFI16	Effector memory CD8
IKZF2	Effector memory CD8
IL15	Effector memory CD8
IL2RB	Effector memory CD8
JAKMIP1	Effector memory CD8
KLRD1	Effector memory CD8
LY96	Effector memory CD8
NFKBIA	Effector memory CD8
PLXNC1	Effector memory CD8
PPP4R1	Effector memory CD8
PTPN22	Effector memory CD8
RGS18	Effector memory CD8
SETD7	Effector memory CD8
SH2D1B	Effector memory CD8
SLA2	Effector memory CD8
STXBP1	Effector memory CD8
TLR5	Effector memory CD8
TYROBP	Effector memory CD8
CCL24	Eosinophil
CFD	Eosinophil
CREB3	Eosinophil
EGR1	Eosinophil
EPX	Eosinophil
FBXO16	Eosinophil
HFE	Eosinophil
HIVEP1	Eosinophil
HIVEP2	Eosinophil
MBP	Eosinophil
PRNP	Eosinophil
RNASE2	Eosinophil
RNASE3	Eosinophil
S100A4	Eosinophil
SIGLEC8	Eosinophil
ATP6V1A	iDC
C1QB	iDC
CHST11	iDC
CSF1	iDC
DPYD	iDC
FNDC3B	iDC
GRP	iDC
IL1RN	iDC
INPP5F	iDC
LPL	iDC
LPXN	iDC
MMD	iDC
PLAU	iDC
PLCB2	iDC
RAB38	iDC
RDX	iDC
RRAGD	iDC



TACSTD2	iDC
TGM2	iDC
TIMD4	iDC
TM7SF4	iDC
BANK1	Immature B cells
CD22	Immature B cells
CYBB	Immature B cells
ETS1	Immature B cells
FAM129C	Immature B cells
FCRL1	Immature B cells
FCRL2	Immature B cells
FCRL3	Immature B cells
FCRL5	Immature B cells
FCRLA	Immature B cells
HDAC9	Immature B cells
HLA-DOB	Immature B cells
HLA-DQA1	Immature B cells
HVCN1	Immature B cells
KIAA0226	Immature B cells
NCF1	Immature B cells
NCF1B	Immature B cells
P2RY10	Immature B cells
PNOC	Immature B cells
SP100	Immature B cells
STAP1	Immature B cells
TAGAP	Immature B cells
TXNIP	Immature B cells
ZCCHC2	Immature B cells
AIF1	Macrophages
CCL1	Macrophages
CCL14	Macrophages
CCL26	Macrophages
CD163	Macrophages
CD300LB	Macrophages
CNR1	Macrophages
CNR2	Macrophages
CPM	Macrophages
CSF3R	Macrophages
ENG	Macrophages
FCAR	Macrophages
IGF1	Macrophages
IL34	Macrophages
L1CAM	Macrophages
LILRA1	Macrophages
LILRA5	Macrophages
LRP1	Macrophages
MS4A7	Macrophages
MS4A8B	Macrophages
TREM1	Macrophages
TREML1	Macrophages

ACSL4	Mast cells
ADAMTS3	Mast cells
ADCYAP1	Mast cells
ARHGAP15	Mast cells
ATP8B4	Mast cells
C19orf59	Mast cells
CASQ1	Mast cells
CLC	Mast cells
CMA1	Mast cells
CPA3	Mast cells
CTSG	Mast cells
DUSP14	Mast cells
EGR3	Mast cells
EMR1	Mast cells
FST	Mast cells
HDC	Mast cells
HEY1	Mast cells
KRT1	Mast cells
LXN	Mast cells
MEIS2	Mast cells
MS4A2	Mast cells
MS4A3	Mast cells
NLRP3	Mast cells
NTRK1	Mast cells
PLAT	Mast cells
PTGS1	Mast cells
PTGS2	Mast cells
RGS16	Mast cells
SCG2	Mast cells
SDPR	Mast cells
SERPINB2	Mast cells
SIGLEC14	Mast cells
SIGLEC6	Mast cells
SLC18A2	Mast cells
SLC24A3	Mast cells
TAL1	Mast cells
TARP	Mast cells
TIE1	Mast cells
TIMP1	Mast cells
TNFAIP6	Mast cells
TSPAN4	Mast cells
VAT1	Mast cells
ATP5O	mDC
CBX1	mDC
DNAJC15	mDC
ENSA	mDC
FOXN3	mDC
PRCP	mDC
SSB	mDC
TPMT	mDC

AICDA	Memory B cells
CCNA2	Memory B cells
CDKN3	Memory B cells
CLCN5	Memory B cells
ENPP1	Memory B cells
FCER1A	Memory B cells
FCRL4	Memory B cells
MYC	Memory B cells
RUNX2	Memory B cells
SORL1	Memory B cells
SOX5	Memory B cells
STAT5A	Memory B cells
STAT5B	Memory B cells
TLR9	Memory B cells
ACTR3	Monocytes
ANXA5	Monocytes
ARPC2	Monocytes
ATP6V1B2	Monocytes
BASP1	Monocytes
CD300LF	Monocytes
DAZAP2	Monocytes
EIF4A1	Monocytes
EIF4G2	Monocytes
EMP3	Monocytes
FCN1	Monocytes
FTL	Monocytes
GABARAP	Monocytes
HIF1A	Monocytes
LITAF	Monocytes
NCOA4	Monocytes
OLR1	Monocytes
RAB1A	Monocytes
RHOA	Monocytes
SAT1	Monocytes
SDCBP	Monocytes
SRGN	Monocytes
TEK	Monocytes
TMBIM6	Monocytes
UBE2D3	Monocytes
ABTB1	Neutrophils
AMPD2	Neutrophils
CAMP	Neutrophils
EMR4P	Neutrophils
FPR1	Neutrophils
FPR2	Neutrophils
GPR77	Neutrophils
MAEA	Neutrophils
PROK2	Neutrophils
SEC14L1	Neutrophils
SEPX1	Neutrophils

SLC25A37	Neutrophils
TNFSF14	Neutrophils
TREML4	Neutrophils
VNN2	Neutrophils
XPO6	Neutrophils
AKT3	NK
AXL	NK
CDH2	NK
CRTAM	NK
CYTH1	NK
FASLG	NK
GRB2	NK
KLRG1	NK
LILRB5	NK
LST1	NK
MAPK4	NK
NOTCH3	NK
PIK3CG	NK
PILRA	NK
PLCG2	NK
SIGLEC7	NK
SIGLEC9	NK
C11orf75	NK56 bright
DYNLL1	NK56 bright
HCP5	NK56 bright
HDGFRP2	NK56 bright
KRT86	NK56 bright
MLST8	NK56 bright
MYL6B	NK56 bright
TAX1BP3	NK56 bright
AKR7A3	NK56 dim
CLTB	NK56 dim
FAM27A	NK56 dim
GLS2	NK56 dim
GPRC5C	NK56 dim
GRIN1	NK56 dim
HLA-E	NK56 dim
KIR2DS4	NK56 dim
KLHL21	NK56 dim
KRT80	NK56 dim
MPL	NK56 dim
PHRF1	NK56 dim
PORCN	NK56 dim
PQBP1	NK56 dim
PSMC4	NK56 dim
TEX264	NK56 dim
UPP1	NK56 dim
BTN2A2	NKT
CD101	NKT
GNLY	NKT

KIR2DL1	NKT
KIR2DL3	NKT
KIR3DL1	NKT
KIR3DL2	NKT
KLRC1	NKT
MICB	NKT
NCR1	NKT
NFATC2IP	NKT
TNFRSF11A	NKT
CBX6	pDC
DAB2	pDC
DDX17	pDC
HIGD1A	pDC
IDH3A	pDC
IL3RA	pDC
MAGED1	pDC
NUCB2	pDC
OFD1	pDC
OGT	pDC
PDIA4	pDC
SERTAD2	pDC
SIRPA	pDC
SPCS3	pDC
TMED2	pDC
TMX1	pDC
UGCG	pDC
ZDHHC17	pDC
BATF	T cells
BTLA	T cells
CCL11	T cells
CCL17	T cells
CCL22	T cells
CCL3	T cells
CCL5	T cells
CCL7	T cells
CCR1	T cells
CCR3	T cells
CCR4	T cells
CCR8	T cells
CD1A	T cells
CD1B	T cells
CD1C	T cells
CD1D	T cells
CD1E	T cells
CD247	T cells
CD28	T cells
CD3D	T cells
CD3E	T cells
CD3G	T cells
CD69	T cells

CD8A	T cells
CXCR1	T cells
CXCR4	T cells
CXCR5	T cells
CXCR6	T cells
FGFBP2	T cells
FLT3	T cells
FOSL1	T cells
GRAP2	T cells
HLA-DRA	T cells
HLA-DRB1	T cells
HLA-DRB5	T cells
HRH2	T cells
IFNG	T cells
IL10	T cells
IL12B	T cells
IL12RB1	T cells
IL12RB2	T cells
IL18R1	T cells
IL18RAP	T cells
IL1B	T cells
IL21	T cells
IL21R	T cells
IL24	T cells
IL26	T cells
IL27	T cells
IL2RA	T cells
IL6	T cells
IL7	T cells
IRF4	T cells
IRF8	T cells
ITGAL	T cells
ITK	T cells
JAK2	T cells
JAK3	T cells
LAIR1	T cells
LAT	T cells
LAX1	T cells
LCK	T cells
LCP2	T cells
LILRA3	T cells
LILRA4	T cells
LILRB1	T cells
LILRB2	T cells
LILRB3	T cells
LILRB4	T cells
MS4A4A	T cells
NAPSB	T cells
NFATC1	T cells
NFKB2	T cells

P2RY14	T cells
PIK3CD	T cells
POU2F2	T cells
PRF1	T cells
RUNX3	T cells
SPI1	T cells
STAT1	T cells
STAT4	T cells
TNF	T cells
TPRG1	T cells
TSLP	T cells
UBASH3B	T cells
ZAP70	T cells
B3GAT1	TFH
BCL6	TFH
CCR7	TFH
CD200	TFH
CD83	TFH
CD84	TFH
CDK5R1	TFH
FGF2	TFH
GPR18	TFH
PDCD1	TFH
ACP5	TGD
C1orf54	TGD
CARD8	TGD
CCL18	TGD
CD209	TGD
CD33	TGD
CECR1	TGD
CLEC10A	TGD
CLEC4A	TGD
CSF1R	TGD
FCER1G	TGD
FCGR2A	TGD
FCGR2B	TGD
FCGR3B	TGD
FGF7	TGD
FGL2	TGD
FPR3	TGD
GM2A	TGD
GPNMB	TGD
HCK	TGD
HK3	TGD
LIPA	TGD
MARCO	TGD
MMP12	TGD
MNDA	TGD
MRC1	TGD
MS4A6A	TGD

NPL	TGD
PLA2G7	TGD
PLEK	TGD
RAB23	TGD
RNASE6	TGD
SDC2	TGD
SLAMF8	TGD
SLC15A3	TGD
SLC38A6	TGD
SLC7A7	TGD
SPP1	TGD
TFEC	TGD
TM6SF1	TGD
TNFSF8	TGD
TREM2	TGD
TRPV2	TGD
ADAM8	Th1
CCR5	Th1
CD151	Th1
CD48	Th1
CD52	Th1
CD53	Th1
CD6	Th1
CD68	Th1
CD7	Th1
CD96	Th1
CD97	Th1
EBI3	Th1
GPR84	Th1
HAVCR2	Th1
ICAM1	Th1
ICAM3	Th1
IGSF6	Th1
IL12A	Th1
IL7R	Th1
IRF1	Th1
ITGA4	Th1
ITGAM	Th1
ITGAX	Th1
ITGB2	Th1
ITGB4	Th1
ITGB7	Th1
LTA	Th1
LTB	Th1
METRNL	Th1
P2RX5	Th1
PTPRC	Th1
SPN	Th1
TBX21	Th1
TLR6	Th1



TNFRSF1A	Th1
TNFRSF9	Th1
TRAT1	Th1
ABP1	Th17
B4GALNT4	Th17
C2CD4A	Th17
C2CD4B	Th17
CA2	Th17
CCDC65	Th17
CEACAM3	Th17
CHRM3	Th17
DOC2B	Th17
F12	Th17
FURIN	Th17
GPR25	Th17
IL17A	Th17
IL17C	Th17
IL17F	Th17
IL17RC	Th17
IL17RE	Th17
IL23A	Th17
ILDR1	Th17
LONRF3	Th17
LTK	Th17
MOCOS	Th17
SH2D6	Th17
TNIP2	Th17
TRAF3IP2	Th17
YBX2	Th17
ASB2	Th2
CALD1	Th2
CCR2	Th2
CSRP2	Th2
DAPK1	Th2
DLC1	Th2
DNAJC12	Th2
DUSP6	Th2
GATA3	Th2
GNAI1	Th2
HTR2B	Th2
LAMP3	Th2
NRP2	Th2
OSBPL1A	Th2
PDE4B	Th2
PHLDA1	Th2
PLA2G4A	Th2
RAB27B	Th2
RBMS3	Th2
RNF125	Th2
SIGLEC10	Th2

SKAP1	Th2
SMAD2	Th2
TMPRSS3	Th2
UBASH3A	Th2
CCL19	Treg
CD34	Treg
CD72	Treg
CTLA4	Treg
FOXP3	Treg
GADD45B	Treg
GEM	Treg
IL1RL1	Treg
IL9R	Treg
MADCAM1	Treg
MYH10	Treg
NCF2	Treg
RCSD1	Treg
RYR1	Treg
SELE	Treg
SELP	Treg
SFRP1	Treg
SIT1	Treg
TIGIT	Treg
TLR10	Treg
TLR2	Treg
TLR7	Treg
TLR8	Treg
TRAF1	Treg
WIPF1	Treg
TGFB1	Treg
ADORA3	MDSC
AG2	MDSC
ARG1	MDSC
BIN2	MDSC
C1orf162	MDSC
CAPS	MDSC
CD117	MDSC
CD11B	MDSC
CD11C	MDSC
CD124	MDSC
CD14	MDSC
CD15	MDSC
CD163L1	MDSC
CD1D1	MDSC
CD21	MDSC
CD23	MDSC
CD274	MDSC
CD31	MDSC
CD35	MDSC
CD40	MDSC

CD43	MDSC
CD44	MDSC
CD66B	MDSC
COX2	MDSC
CR2	MDSC
CTR9	MDSC
EBP	MDSC
FAM48A	MDSC
FAM70B	MDSC
FCER2	MDSC
FCGRT	MDSC
FERMT3	MDSC
FLOT1	MDSC
FLT1	MDSC
GIMAP7	MDSC
GLI4	MDSC
GNA15	MDSC
GPR34	MDSC
GPSM3	MDSC
HLA-DR	MDSC
IDO	MDSC
IKZF1	MDSC
IL12	MDSC
IL13	MDSC
IL18BP	MDSC
IL1R	MDSC
IL4RA	MDSC
INPP5D	MDSC
ITGA3	MDSC
KDR	MDSC
KRIT1	MDSC
LGALS3	MDSC
MGAT4A	MDSC
NAIP	MDSC
NEK3	MDSC
NFSF13	MDSC
NOG	MDSC
PARVG	MDSC
PDRG1	MDSC
PECAM1	MDSC
PIK3R5	MDSC
PPP1R2P4	MDSC
PSAP	MDSC
PTGES2	MDSC
PTPRE	MDSC
RNASE1	MDSC
RP11	MDSC
S100A8	MDSC
S100A9	MDSC
SELPLG	MDSC

SLA	MDSC
SLC36A1	MDSC
SLC44A1	MDSC
ST8SIA4	MDSC
STAT3	MDSC
STAT6	MDSC
TBXAS1	MDSC
TFGFB1	MDSC
TFGFB2	MDSC
TFGFB3	MDSC
TFGFB5	MDSC
TFRC	MDSC
TGFB2	MDSC
TPP1	MDSC
VTCN1	MDSC

**Table S3. Univariate and multivariate Cox Hazards Analysis of Patients with molecular phenotypes**

Variables	Univariate Cox model		Multivariate Cox model*		
	HR (95% CI)	p	HR (95% CI)	p	sign†
Tem CD8	0.46 (0.16-0.85)	0.026	0.61 (0.12-0.88)	0.044	*
Tem CD4	0.54 (0.43-0.98)	0.038	0.59 (0.35-1.01)	0.051	·
Treg	2.25 (1.57-3.69)	0.015	2.11 (1.24-3.76)	0.038	*
NK	0.64 (0.42-0.88)	0.057	0.69 (0.35-0.93)	0.065	·
Act DC	0.71 (0.43-1.12)	0.031	0.71 (0.33-1.19)	0.042	*
MDSC	2.39 (1.62-4.06)	0.023	2.15 (1.33-4.21)	0.037	*
Act CD4	0.42 (0.33-0.87)	0.402	0.52 (0.12-1.05)	0.621	
Act CD8	0.36 (0.12-0.93)	0.052	0.45 (0.23-0.78)	0.059	·
Tcm CD4	0.57 (0.32-1.12)	0.701	0.45 (0.11-1.32)	0.881	
Tcm CD8	0.31 (0.09-0.82)	0.023	0.52 (0.24-0.96)	0.036	*
Th1	0.65 (0.12-0.78)	0.041	0.66 (0.32-0.87)	0.068	·
Th2	0.62 (0.31-1.15)	0.458	0.69 (0.23-1.48)	0.651	
Th17	2.35 (1.16-3.66)	0.057	2.64 (1.02-3.69)	0.066	·
Tgd	0.56 (0.33-1.05)	0.552	0.44 (0.15-1.26)	0.651	
Tfh	0.61 (0.12-1.45)	0.991	0.75 (0.41-1.69)	0.875	
Act B	0.66 (0.28-1.15)	0.899	0.67 (0.24-1.56)	0.901	
Imm B	0.65 (0.23-1.31)	0.657	0.46 (0.30-1.67)	0.664	
Mem B	1.47 (1.01-3.99)	0.356	1.12 (0.93-3.68)	0.401	
Mac	2.57 (1.17-5.58)	0.097	2.01 (1.68-4.69)	0.125	
Mast	1.97 (1.05-3.59)	0.039	2.14 (0.89-3.70)	0.114	
Mon	0.64 (0.43-1.35)	0.879	0.45 (0.10-1.24)	0.993	
pDC	1.15 (0.67-2.01)	0.705	1.41 (0.45-2.96)	0.781	
iDC	0.77 (0.36-1.09)	0.845	0.46 (0.12-1.15)	0.658	
mDC	0.57 (0.24-1.06)	0.997	0.47 (0.22-1.01)	0.778	
NKT	0.54 (0.12-0.93)	0.652	0.61 (0.30-1.16)	0.933	
Eos	0.51 (0.23-1.28)	0.678	0.64 (0.11-1.34)	0.752	
Neu	0.78 (0.52-1.16)	0.999	0.98 (0.23-1.36)	0.999	
NK CD56dim	0.66 (0.35-0.98)	0.773	0.46 (0.22-1.19)	0.801	
NK CD56bright	0.55 (0.41-1.25)	0.871	0.75 (0.43-1.39)	0.923	
MSI status (MSI-H vs. MSS)	0.85 (0.49-1.98)	0.821			
Mutation rate (Hypermutated vs. Non-hypermutated)	0.94 (0.46-1.86)	0.835			
Methylation subtype (CIMP-H vs. CIMP-L/CIMPneg)	1.28 (0.94-3.68)	0.635			
Tumor site (Right vs. Left colon)	0.58 (0.32-1.06)	0.547			

\* including molecular phenotypes (MSI, mutation Rate, methylation subtype, tumor site) as binary covaria

† p<0.001 ... \*\*\*, 0.001≤p<0.01 ... \*\*, 0.01≤p<0.05 ... \*, 0.05≤p<0.1 ... ·

**Table S4:** List of predicted neo-antigens

Peptide sequence(s)	# Patients	Chromosome:StartPosition	Genes
TEYKLVVVGAV	28	12:25398284	KRAS
QASPALASL	19	11:117789313	TMPRSS13
TQLARFFPI	19	17:56435161--17:56435252	RNF43
SPAQASPAL	16	11:117789313--11:117789312	TMPRSS13
AQASPALASL	16	11:117789313	TMPRSS13
RFFPITPPV	15	17:56435161--17:56435252	RNF43
GADGVGKSAL	14	1:115258747--12:25398284	KRAS--NRAS
MQLCTQLARFF	14	17:56435252--17:56435161	RNF43
FVAEFPGSEL	13	19:1065018	ABCA7
ARFFPITPPV	13	17:56435161--17:56435252	RNF43
FFDETRQL	13	3:178916876	PIK3CA
WRFCSGVL	13	8:120220776	MAL2
WLPPMFLYL	13	8:120220776	MAL2
MQLCTQLARF	12	17:56435252--17:56435161	RNF43
RRQPCAHLWL, RRQPCAHL	11	19:39330958--19:39330959	HNRNPL
WRFCSGVLSGF	11	8:120220776	MAL2
ARAVHLPPEL	11	2:239050033	KLHL30
YLYYKDGSCS	11	8:120220776	MAL2
QLARFFPI	11	17:56435161	RNF43
RRLGFLATAWL	11	10:17659131	PTPLA
LTITSLSLPI	11	5:140215022	PCDHA7
FLATAWLTF	10	10:17659131	PTPLA
LTITSLSL	10	5:140215022	PCDHA7
ARAVHLPPELL	10	2:239050033	KLHL30
FFDETRQLCDL	10	3:178916876	PIK3CA
SEITKQEKDFL	10	3:178936091	PIK3CA
SRQPACAHGL	10	19:39330959--19:39330958	HNRNPL
MRRNMISTL, MRRNMISTLQM	9	16:2059622	ZNF598
IMMSWMPPL	9	1:204228411	PLEKHA6
YVDPGSDHF	9	18:48591919	SMAD4
YKDGSCS	9	8:120220776	MAL2
WRPLTITL	9	17:577539	TP53
KIGDFGLATEK	9	7:140453136	BRAF
FTPLSAHPVPV	9	1:204228411	PLEKHA6
SPAQASPALA	9	11:117789313	TMPRSS13
TRAPSSARWF	9	8:120220776	MAL2
LLGRNSFEVHV	9	17:577120	TP53
FWLPPMFL, FWLPPMFLYL	9	8:120220776	MAL2
SAMPSAMGVAL	9	1:204228411	PLEKHA6
KRRGGPPSPPL	9	17:56435161	RNF43
VRHDPQARAV	9	2:239050033	KLHL30
RAVHLPPELLS	9	2:239050033	KLHL30
VVGADGVGK	8	1:115258747--12:25398284	KRAS--NRAS

WSLGRSFLPL	8	16:2059622	ZNF598
VTSATWTM	8	16:2059622	ZNF598
YLLDGLVRL	8	19:17837512	MARPIS
CSMRRNMISTL	8	16:2059622	ZNF598
TSATWTMMSCL	8	16:2059622	ZNF598
AAEFPGSEL	8	19:1065018	ABCA7
VRTSMLTL	8	1:204228411	PLEKHA6
WLPPMFL	8	8:120220776	MAL2
		5:112175626--5:112175596--	
KYLKIKHLLL	8	5:112175594--5:112175605--	APC
		5:112175572--5:112175606	
RQLCDLRLF	8	3:178916876	PIK3CA
ARHGGWTTKM	8	3:178952085	PIK3CA
VAAEFPGSEL	8	19:1065018	ABCA7
FPALACSL	8	2:36825137	FEZ2
MMSWMPPL, SIMMSWMPPL	8	1:204228411	PLEKHA6
FPITPPVWHIL	8	17:56435161	RNF43
QARAVHLPPEL	8	2:239050033	KLHL30
RAEWHPLGAL	8	16:2059622	ZNF598
SSAWRFCSGVL	8	8:120220776	MAL2
WRTSAMPASAM	8	1:204228411	PLEKHA6
QASPAQASPAL	8	11:117789313	TMPRSS13
VVGAVGVGK, VVGAVGVGK	8	12:25398284	KRAS
FFPITPPV	8	17:56435161	RNF43
RMQLCTQLARF	7	17:56435161	RNF43
VRTSMLTLLPM, VRTSMLTLL	7	1:204228411	PLEKHA6
HPHHKQAGPV, GPVAHQHLV, HPHHKQAGPVA, GPVAHQHLV	7	13:21562948	LATS2
GRNSFEVHV	7	17:577120	TP53
EEFFDETRQL	7	3:178916876	PIK3CA
RAHRVQLL	7	18:3452223	TGIF1
ALPPPPPPV	7	10:105110740	PCGF6
RAVHLPPEL	7	2:239050033	KLHL30
MRSSELPLVL	7	18:56887507	GRP
YELSSTSV	7	13:21562832	LATS2
LTSAPSAQQSL	7	3:114058003	ZBTB20
SMRRNMISTL	7	16:2059622	ZNF598
SELREAHGGRL, AEFPGSEL	7	19:1065018	ABCA7
HAQCPSPVL	7	8:145625525	CPSP1
RTSMLTLLPM	7	1:204228411	PLEKHA6
ASDAYPSAF	7	1:29138975	OPRD1
CRVTPMTRRTV	7	16:2059622	ZNF598
RRNMISTLQM, RRRNMISTL	7	16:2059622	ZNF598
ITPPVWHIL	7	17:56435252--17:56435161	RNF43

MMSWMPPLA, IMMSWMPPLA	7	1:204228411	PLEKHA6
SRLLCRPL	7	7:128587374	IRF5
SRPLCSRPL	7	7:128587381--7:128587374--7:128587374--7:128587381	IRF5
TRCATAAL	7	16:2059622	ZNF598
MRATVPPPSL	7	19:39330959	HNRNPL
YELSSTSVQW	7	13:21562832	LATS2
SMLTLLPM	7	1:204228411	PLEKHA6
TMMSCLSTCAA, MMSCLSTCAA	7	16:2059622	ZNF598
ARSCARWSL, ARWSLGRSFL	7	16:2059622	ZNF598
ARAPTAVPFAF	7	1:204228411	PLEKHA6
NQRPLTITL	7	17:577538	TP53
MAPTPPSTPM	7	1:204228411	PLEKHA6
VASAWLTVL, AVASAWLTV, VASAWLTV	7	1:228504670	OBSCN
SPAQASPALAS	7	11:117789313	TMPRSS13
MAPETTLWL	7	22:20130522--22:20130515	ZDHHC8
ARAEWGL, ARAEWGLAL	7	16:2059622	ZNF598
LARFFPITPPV	7	17:56435161	RNF43
VVAVATWR, CVVAVATWR	7	19:49611319	SNRNP70
FLATAWLTFY	7	10:17659131	PTPLA
RRHLQPHDAL	7	7:42005678	GLI3
SAMPSAMGV	7	1:204228411	PLEKHA6
RRAAHSRV	7	18:3452223	TGIF1
REEFFDETRQL	7	3:178916876	PIK3CA
SRPTGRPATV	7	16:2059622	ZNF598
SALARPVSAAL	6	7:75677504	MDH2
HRAAHSRV	6	18:3452223	TGIF1
WVRHDPQARAV	6	2:239050033	KLHL30
MAPTPPSTPMI	6	1:204228411	PLEKHA6
SQSIMMSW	6	1:204228411	PLEKHA6
RRRRRCPGGRV	6	17:3627473	GS2
LLAPATEHSSL	6	17:72350412	KIF19
KRRRLGFL	6	10:17659149--10:17659131--10:17659131--10:17659149	PTPLA
		5:112175766--5:112175756--	
LQMDFLVHPA	6	5:112175752--5:112175772--5:112175770--5:112175761	APC
SAHPVPVL	6	1:204228411	PLEKHA6
TTRCATAAL	6	16:2059622	ZNF598
CLLDILDTAGK	6	1:115256530	NRAS
SELPLVLLAL	6	18:56887507	GRP
TRFLTVPV	6	7:139167934	KLRG2
SATQASMTL	6	22:20130515--22:20130522	ZDHHC8

CTQLARFFPI	6	17:56435161	RNF43
ARWSLGRSF	6	16:2059622	ZNF598
MRAGGCCHAL	6	10:46999601	GPRIN2
LRPGHLHL	6	8:145625525	CPSP1
RELYDRGPPL	6	19:49850473	TEAD2
QRPLTITL	6	17:577538	TP53
FAVLGTVMVM	6	1:150530506--1:150529443	ADAMTSL4
RRGDPRLKT, LRRGDPRLKT	6	1:204228411	PLEKHA6
MENSHPPPTTT, MENSHPPT	6	12:122242658	SETD1B
TSMLTLLPM	6	1:204228411	PLEKHA6
AAAGAVFL	6	10:71906150	TYSDN1
HVAHAAAAL, VAHAAAAL	6	2:43452464--2:43452491--2:43452244--2:43452439--	ZFP36L2
APATEHSSL	6	17:72350412	KIF19
TEHSSL, TEHSSLHL	6	17:72350412	KIF19
LFPHPWTTDM	6	2:171572940	SP5
AAALPPPPPPV	6	10:105110740	PCGF6
RAPEVPRCAM	6	22:20130515--22:20130522	ZDHHC8
FTPLSAHPV	6	1:204228411	PLEKHA6
SSYSRVVALV	6	2:137507501	CBR3
SEITKQEKDF	6	3:178936091	PIK3CA
STQHPVPPSTL	6	17:17119709	FLCN
ALARPVSAAL	6	7:75677504	MDH2
ARPGPWRTSAM	6	1:204228411	PLEKHA6
RRHAQCPSVPL	6	8:145625525	CPSP1
GSMSSAAV	6	16:2059622	ZNF598
FAALANAL	6	19:1004896	GRIN3B
RTSAMPASAM	6	1:204228411	PLEKHA6
VLGSHLAV	6	1:204228411	PLEKHA6
AMPSAMGV	6	1:204228411	PLEKHA6
SRLFHPWTTDM	6	2:171572940	SP5
AEFPGSELREA	6	19:1065018	ABCA7
GRRASVPCRP, RRASVPCRP, TRQECRRASV	6	1:204228411	PLEKHA6
TRHHHPAHFH	6	X:54209387	FAM120C
RTLACVCAL	6	19:17837425	MARPIS
SSAWRFCSGV	6	8:120220776	MAL2
RSCVVAVATWR	6	19:49611319	SNRNP70
DTAGKEEY	5	1:115256530--12:25380277	KRAS--NRAS
GRSVAVDPEL	5	17:40706906	HSD17B1
CRKVLRL	5	19:47878858	DHX34



RPLLHLHL	4	17:70119909--17:70120314--17:70120194--17:70120345	SOX9
LRCPLTAPL, ARDLRCLP	4	12:121432115--12:121432118	HNFI1A
TRKQTKVLWPL, LRPPPLSL, TRKQTKVL	4	5:137803132	EGR1
PRAHRVQL	4	18:3452223	TGIF1
RPTGRPATV	4	16:2059622	ZNF598
HPHRRHLWGPF	4	17:70120345--17:70120194--17:70120314--17:70119909	SOX9
SRPRSASL	4	5:137803132	EGR1
GRIIHLAL	4	19:6737481	GPR108
MRPPRAGPLGL	4	22:19968971	ARVCF
ARLVATPAL	4	22:20130515--22:20130522	ZDHH8
SMQDPLLSL	4	3:168833257	MECOM
LTSRPLTL	4	12:58025103	B4GALNT1
HTSTVHCM	4	4:153249384	FBXW7
RSLELGAAPL, MRRSLELGAAP	4	19:33167455	RG59BP
APFRVNHAV	4	5:112175350--5:112175346--5:112175484--5:112175351	APC
HRVVRPRACM	4	16:50745399	NOD2
CARWSLGRSF	4	16:2059622	ZNF598
RRPWNSFTSL, VRRPWNSFTSL	4	16:50745399	NOD2
MTACSLARLV	4	22:20130515--22:20130522	ZDHH8
CAMAPETTL	4	22:20130515--22:20130522	ZDHH8
MNWRPILTI	4	17:7577539	TP53
RSRSWTSK	4	7:100283942--7:100285170	GIGYF1
ATFSSVPLV, FSSVPLVASI	4	1:22191454	HSPG2
RRPHSCLADV, RRRPHSCLADVL	4	5:112175351--5:112175346--5:112175424	APC
QRASRMRRWWM, MRAQRASRM, SRMRRWWMNAA, SRMRRWWM	4	19:871222	MED16
SELPLVLLALV, SELPLVLL, SELPLVLLA	4	18:56887507	GRP
RAAPSALGAL	4	6:18122506	NHLRC1
VVRHCPHHER	4	17:7578406	TP53
FPSAGANA	4	1:29138975	OPRD1
SAYLGRITL, SAYLGRITLLV, SAYLGRITLL	4	10:890939	LARP4B
FANNSGFV, WAFANNSGF, WAFANNSGFV, FANNSGFVAEL	4	9:140008750	DPP7
WRLRGGAL	4	16:705360	WDR90

RMTSLSASTSL	4	17:17119709	FLCN
TSPPRRSPALR, TTTTSSPR	4	12:122242658	SETD1B
EPAPAPATY	4	16:84224967	ADAD2
SRPPVTQRL	4	2:70315174	PCBP1
ERYYPVQRLPF, TRERYYPVQRL, QRLPFSTV, ERYYPVQRL	4	2:242674803	D2HGDH
LARLVATPAL	4	22:20130515--22:20130522	ZDHH8
ARRESRFWAL, SRMPARRESRF	4	18:34205516	FHOD3
NPVLVNEV, LPNEVLQEA	4	19:45867259	ERC2
APANPEPSA	4	1:41976328	HIVEP3
YLWPSRTL	4	14:89878534	FOXN3
LMVEAVAMM	4	X:135956575--X:135956571	RBMX
KVHLNMTFR, KVHLNMTFRFR, KVVLRHPK	4	5:112175346--5:112175351--5:112175350	APC
RELLLVGRY, GERELLLVGRY	4	17:18918510--17:18918511	SLC5A10
LRGPPRKL	4	16:15802687	MYH11
SSRQHSALM, HRSALMTF, SRQHSALMTF, HRSALMTFL, SRQHSALM, HRSALMTFL, SRQHSAL	4	16:50745399	NOD2
LRARGGTI	4	12:122242658	SETD1B
ARTARSAL, VRARTARSAL	4	18:34205516	FHOD3
IRSEGDQLL, IRSEGDQLLIV	4	19:51843808	VSIG10L
VRQQLRL	4	2:43452439--2:43452342--2:43452464--2:43452244	ZFP36L2
SLAALQLPA, QLPAAAPPV, ALQLPAAAPPV, SLAALQLPAA	4	2:43452244--2:43452532--2:43452464--2:43452342	ZFP36L2
CTACVERCPWK	4	10:29760116	SVIL
QAWWPARRGPL	4	3:114058003	ZBTB20
AAAPPVRL	4	2:43452464--2:43452439--2:43452342	ZFP36L2
NQRPIITI	4	17:7577538	TP53
LLFLGLRGL, LLLRLLFL, LLLRLLFLGL, FLGLRGLHAL	4	2:43452244--2:43452532--2:43452464--2:43452342	ZFP36L2
RESRFWALQA	4	18:34205516	FHOD3
APAPAQPSAT, APAQPSAT	4	9:124855211	TTLL11
SPVRRRRRCPG	4	17:3627473	GS2
RRGRRRL	4	2:43452464--2:43452244--2:43452439--2:43452342	ZFP36L2
AEATNGEARAA	4	16:88599696	ZFPM1
FEPSPAEPL, MDFEPSPAEPL	4	2:39187190	ARHGEF33
SLASCASVAI, SLASCASV	4	1:150529443--1:150530506	ADAMTSL4
VLQMDFLV	4	5:112175752--5:112175772--5:112175761--5:112175766	APC

RLMAPVGSV	4	17:48433967	XYLT2
FVVADLLL	4	1:154304153	ATP8B2
RLLLLLPLLW	4	19:41858921	TGFB1
LMNLATADLLL	4	19:17000632	F2RL3
MRPLPGRIEV, MRPLPGRI	4	18:658064	C18orf56
SPRRAGPT	4	1:155178782	MTX1
MTEVVRHCPH	4	17:7578406	TP53
AARAEWPLAL	4	16:2059622	ZNF598
KEAYGRHQREI	4	14:32561296	ARHGAP5
GMNQRPILTI	4	17:7577538	TP53
FWLPPPMF	4	8:120220776	MAL2
TAVPAFTPL, RAPTAVPF	4	1:204228411	PLEKHA6
LLPRALPSLL	4	18:34205516	FHOD3
APFRVNHAVEV	4	5:112175493--5:112175424--5:112175351--5:112175484	APC
RTSMLTLL	4	1:204228411	PLEKHA6
REMVSNMSGPS, REMVSNMS, REMVSNMSG, KELRALREM	4	13:46288145	SPERT
GLGVEVPGV	4	1:227922918	JMJ4
LSYHRLPL, LPLWAALPL	4	2:43452491--2:43452464--2:43452439	ZFP36L2
SSATQASMTL, HSSATQASM	4	22:20130522--22:20130515	ZDHH8
GAVGVGKSAL	4	12:25398284	KRAS
LEQMLHScri	4	X:56591874	UBQLN2
LWDVLLSRELF	4	1:15850613	CASP9
VRSTVCAMDSL, VRSTVCAM, LRPVRLQKY	4	12:121432118--12:121432115	HNFI1A
FPPRSPC, FPPRSPCPA	4	8:120220776	MAL2
KLVVVGAAV	4	12:25398284	KRAS
RSFPAASPSGL	4	20:23066469	CD93
TPMTRRTVGT, WPGIACRVTPM, MTRRTVGT RSA, TPMTRRTVGT	4	16:2059622	ZNF598
ATEHSSLSL	4	17:72350412	KIF19
KRNTGTGLSL	4	11:8751889	ST5
WATWLSLAL, RSRRWATWLSL, RSRRWATWL	4	10:124895627	HMX3
CMGGMNWR	4	17:7577539	TP53
SLPTRPRL, LRPPPLSL, RLLPLTRPRL	4	5:137803132	EGR1
ALRARGGTI, SPRRSPAL	4	12:122242658	SETD1B
GPHRAHRVQL	4	18:3452223	TGIF1
RLLPLWAAL, RLLPLWAALPL	4	2:43452464--2:43452491--2:43452532--2:43452342	ZFP36L2
LGLFATAWLT	4	10:17659131	PTPLA

MSRPLRRWL, MSRPLRRWLL	4	1:85040070	CTBS
GRRTSLAALQ, RRTSLAAL, RRTSLAALQ, GRRTSLAAL	4	2:43452342--2:43452439--2:43452244--2:43452464	ZFP36L2
RQLCDLRL	4	3:178916876	PIK3CA
WSLGRSFL	4	16:2059622	ZNF598
LRPCSGARPV, RRPCSGARPV	4	16:50745399	NOD2
VPLPTPPPPPL	4	1:109792735	CELSR2
RRHAQCPV	4	8:145625525	CPSF1
TPPPPPPL	4	1:109792735	CELSR2
LASCASVAI	4	1:150529443--1:150530506	ADAMTSL4
HTSTVHCMLH	4	4:153249384	FBXW7
CRPACTCISM	4	17:48433967	XYLT2
HLVGSYPPA	4	17:48433967	XYLT2
TEHSSLSLH, TEHSSLSLHS	4	17:72350412	KIF19
LLSPLDSSPL	4	3:77657038	ROBO2
LRPGLHL	4	8:145625525	CPSF1
GRPDMLRL	4	2:43452439--2:43452342--2:43452464--2:43452244	ZFP36L2
LRWLFPPTGGSV	4	20:60887581	LAMA5
KYLKIKHLL, KYLIKHL	4	5:112175594--5:112175606--5:112175605--5:112175572	APC
CSMRNNMI	4	16:2059622	ZNF598
AEASTGAW, AEASTGAWTA	4	18:34205516	FHOD3
KYSRWIFL	4	5:112175760--5:112175752--5:112175756	APC
GRTPTRTLM	4	17:48433967	XYLT2
GLPAGAAVQ	4	2:43452244--2:43452532--2:43452464--2:43452342	ZFP36L2
GIACRVTPM	4	16:2059622	ZNF598
CEICVKSRRV	4	18:34205516	FHOD3
LPRCGCSASSA, LPRCGCSA	4	16:2059622	ZNF598
SEKYLKIKHLL	4	5:112175594--5:112175553--5:112175596--5:112175626	APC
CTPPAYLL	4	19:17837512	MAP1S
RASVPCPRM	4	1:204228411	PLEKHA6
MASAPGERL	4	1:248020556	TRIM58
VRSEALTPL	4	19:17393015	ANKLE1
YSATHRIHEI	4	19:11978669	ZNF439
FGPCTPPAYL	4	19:17837512	MAP1S
WTMRMKWAPL	4	7:100285170	GIGYF1
CRPRSRTTF, RPRSRTTF	4	16:50745399	NOD2
ARHPDQL	4	2:43452464--2:43452244--2:43452439--2:43452342	ZFP36L2
FPVNGPPRDSL	4	1:213031948	FLVCR1
ARALPPDVHLL	4	22:24121378	MMP11





RPACTCISM	3	17:48433967	XYLT2
RERTAWAQL	3	16:50745399	NOD2
LVASISAVSL, SSVPLVASI	3	1:22191454	HSPG2
ILARLVATPAL, ILARLVATPA	3	22:20130522--22:20130515	ZDHH8
GRSSRQPL	3	10:124895627	HMX3
LPHALLAPSL	3	1:228559450	OBSCN
TSSPRRSPAL	3	12:22242658	SETD1B
MPSAMGVAL	3	1:204228411	PLEKHA6
APSGHEGILAL	3	11:76751542	B3GNT6
RTSLAALQL	3	2:43452439--2:43452464	ZFP36L2
NWRPILTI	3	17:7577539	TP53
GRTPTRL, TRLMAPVGSV	3	17:48433967	XYLT2
LQMIWAFY	3	1:35972480	KIAA0319L
LRQARRGPPGL	3	3:183951135	VWA5B2
APPSTRMMAT, APPSTRMM, APPSTRMMA	3	2:227661664	IRS1
SPFRSVGV, SPFRSVGVA	3	17:7577036--17:7577065--17:7576881	TP53
FPISFIPG, TPGGAAPFL, STPPGGAAP, FPISFIPGA	3	1:154942910	SHC1
CPLCSRWL	3	3:183951135	VWA5B2
LCMFPEPLTI	3	2:46987060	SOCS5
YVDPGSGDH	3	18:48591919	SMAD4
RHWLWVWVW, RHWLWVWV	3	12:53207602	KRT4
AEWPLALA	3	16:2059622	ZNF598
HPADPQPPA, HPADPQPPAL	3	17:70120194--17:70120345--17:70119909	SOX9
LRSSRRGL	3	10:124895627	HMX3
KLMHTKIDKLR	3	10:91497569	KIF20B
RASPSAVCL	3	20:23066469	CD93
NVFLNLHFV, FVLNLHFV, YVYIETNVFV, LLYVYIETNV, VLNLHFV, YIETNVFV, FVLNLHFV, YIETNVFV	3	18:12699829	CEP76
TVHCMHLHEKR	3	4:153249384	FBXW7
MAVLPALL	3	11:107992346	ACAT1
KTSTIALF	3	8:25154087	DOCK5
CSRLCSR	3	7:128587374	IRF5
RRETEPCMLL, ARRETEPCMLL	3	1:156814343--1:156814053	INSRR
RRRRCPPGRV	3	17:3627473	GS62
ALFAALANAL	3	19:1004896	GRIN3B
MTFLLASWCV	3	16:50745399	NOD2
SQSGAWTM	3	7:100285170	GIGYF1
YGMWGGGCWVW	3	8:145689659	CYHR1
KLFNEMAERH, KLFNEMAER	3	22:25315953	SGSM1

TMNDSKHK, LTMNDSKHK, KLESAPK	3	2:203420130	BMPR2
YAARGRGQWAV	3	10:1094906	ID1I
TSFPFLSGL	3	16:30736370	SRCAP
SSHRFCFHQY	3	7:91732038	AKAP9
WLLQAQAAGV	3	1:6614391	NOL9
LAGSLSTM, FGVPLGSLCL	3	1:204228411	PLEKHA6
YMMKKGKRDKL, KLPFLLLL, KRDKLPFL, KRDKLPFL	3	10:63958149	RTKN2
LEGGTPPMPF, LEGGTPPVM, LEGGTPPW	3	10:100186987	HPS1
WRVSPRPLSPL, WRVSPRPL	3	13:111368164	ING1
MTSMTSMTSM, TSMSTSM	3	22:38483198--22:38483204--22:38483174	BAIAP2L2
HVHPSRLL	3	10:114900984	TCF7L2
QQTGKSPV	3	19:58879976	ZNF837
VAFPRPRF	3	19:1231142	C19orf26
FRRLVSTL, RRLVSTLNF, FFRRLVSTL, KFFRRLVSTL, KFFRRLV, FRRLVSTLNF	3	10:94243045	IDE
RPLCSRLL	3	7:128587374	IRF5
AVASAWLTVL	3	1:228504670	OBSCN
RRDDDGTL	3	4:24801315	SOD3
TRWKPLQTVRL, TRWKPLQTV	3	6:151673000	AKAP12
FLPPMHCPTA	3	22:20130515--22:20130522	ZDHHC8
GEWELCRA	3	1:200880978	C1orf106
RPIAQWHL	3	11:1858572	SYT8
MAAMRLMPKF, MAAMRLMPKFL	3	2:27248517	MAPRE3
FRFRGRV, VRFRFRGRV, FRFRGRV, FRFRGRV, FRFRGRV	3	19:54974318	LENG9
RMWNTVQK	3	4:62910205	LPHN3
MSPMTPMTPM, MSPMTPMTPM	3	22:38483155	BAIAP2L2
STNPNFPPF, ISTNPNFPPF, STNPNFPPF	3	17:10258071	MYH13
KSSCLQIHR	3	19:44778796--19:44778797	ZNF233
FTFCDVFWL, KLIRFLCF, FTFCDVFWL, KLIRFLCF, FYKLIRFLCF	3	11:111742146	ALG9
LYYKDGSC	3	8:120220776	MAL2
RAPSSFHPL, RAPSSFHPLV	3	1:228559450	OBSCN
RVPVSTTL, VWPVSTTL	3	6:13206135	PHACTR1
KLAACARECV	3	17:2266799	SGSM2
SALPQGRAPL	3	18:34205516	FHOD3

LPWHIQIGI, LPWHIQIGI	3	12:66622063	IRAK3
FSNVNYYVH	3	16:88599701--16:88599696--16:88599696--16:88599701	ZFPM1
WLGPAVAPA, TLWLGPAV	3	22:20130515--22:20130522	ZDHH8
LRLQRSLEL, IRKQRQHL, LRLQRSLL	3	10:61828580	ANK3
SRRWATWLSLA	3	10:124895627	HMX3
HLWGPFFPA	3	17:70120314--17:70120194--17:70120345	SOX9
RVLLSCAR	3	10:135186806	ECHS1
HRPLCQRFPPL, SRHAHRPL	3	16:14346300	MKL2
SWTPALRTM	3	3:52551362--3:52550119	STAB1
ETRQLCDLR	3	3:178916876	PIK3CA
SRCSSFLPL, SRCSSFL	3	1:156814343--1:156814053	INSRR
VAPPTPPLLL, LLLSLHPSL	3	2:204305619	RAPH1
HVWSHHTL	3	19:990281	WDR18
ASVAPATL	3	22:20130522--22:20130515	ZDHH8
VRAGNPAVAAL	3	3:139258508	RBP1
NAPQLTITSL	3	5:140215022	PCDHA7
MAHPPHYL, IMAHPPHYL	3	1:55081756	FAM151A
FANNSGFVA	3	9:140008750	DPP7
TLWGVMTSL	3	17:17119709	FLCN
LPPMFYLY, LPPMFYLY	3	8:120220776	MAL2
FQEEPMTGFYV	3	16:28847350--16:28847356	ATXN2L
SRKRIVI, SRKRIVINI	3	10:63958149	RTKN2
KSHHRVVF	3	18:34205516	FHOD3
AALANALL, FAALANALLSA	3	19:1004896	GRIN3B
LPAPFRVNA, VVRLPAPFR, VVRLPAPF	3	5:112175351--5:112175346--5:112175350	APC
KRTKCTF	3	10:89717770	PTEN
SEGAETPRI, AESEGAETPRI	3	19:51843808	VSIG10L
FMQEFYKILRF, FYKLIRFLCF, KLIRFLCF, KLIRFLCF, FYKLIRFL	3	11:111742146	ALG9
KQMNDARHGGW	3	3:178952085	PIK3CA
RMMRRQWSL	3	6:116836954	FAM26E
SREERLWF	3	9:101900288	TGFBRI
RTGPRTTTATM	3	16:2059622	ZNF598
GRNSFEVCV	3	17:7577121	TP53
YGPPTSL	3	19:39330958	HNRNPL
YPSAFPSAG, FPSAGANAS	3	1:29138975	OPRD1
FTLGAQPRFL	3	8:144810138	FAM83H
RQPCAHGLW	3	19:39330959--19:39330958	HNRNPL
RLWRARRPFL, RAWRRPFL, RAWRRPFL, RAWRRPFLMM	3	22:18300932	MICAL3
MSPSLDLY, YEMSPSLDLY	3	9:134183379	PPAPDC3

GEAVAPAL, GEAVAPALL	3	8:8860620	ERI1
RAGTRGSL	3	16:2059622	ZNF598
LLAPPPSAPL	3	14:75230947	YLPM1
SPTECLGHPV	3	19:10202224	C19orf66
SQNDQSL	3	21:30701851	BACH1
REMVSNMSGP, KELRALREMV, ALREMVSNM	3	13:46288145	SPERT
QSGAWTMRMK, QSGAWTMRMK, QSGAWTMRMK, GAWTMRMK	3	7:100283942--7:100285170	GIGYF1
GSELPLVLL	3	18:56887507	GRP
TPRIRSEGDQ	3	19:51843808	VSI10L
SELREAHG, SELREAHGG	3	19:1065018	ABCA7
FARRCEPPEA	3	17:79899272	MYADM2
TADLLAL, TADLLALAL	3	19:17000632	FRL3
FLHPCKIALF, FLHPCKIAL	3	10:85978958	CDHR1
MAPVGSVM	3	17:48433967	XYLT2
GEKTEIQL	3	2:203420130	BMPR2
LRELYDRGPP	3	19:49850473	TEAD2
RMPARRSRF	3	18:34205516	FHOD3
MRMRWWMNA, MRMRWWMNA	3	19:871222	MED16
ATGSSPGK	3	20:23618427	CST3
IQDFIFVMP	3	5:72199545	TNPO1
WLVLVLEPV, LLLVWLV	3	3:66550762--3:66550756--3:66550756--3:66550762	LRIG1
CTYPTQKPF	3	8:39091459	ADAM32
RTLACVCALLV	3	19:17837425	MAP1S
ASAPTSPL	3	22:46449891	C22orf26
FTRAERLTL, TRAERLTL	3	11:72408055	ARAP1
KRSSQSRSPV	3	18:34205516	FHOD3
ASRPPVTQRL	3	2:70315174	PCBP1
YMLLWVENL	3	14:103593950	TNFAIP2
LLRFSMRV, WLPSPMTALL	3	14:20846338	TEP1
RRRHPRAL, RRRHPRAL, RRRHPRAL, RRRHPRAL	3	8:145106939	OPLAH
WPDTHPTCAL	3	22:20130522	ZDHH8
STVHCMHLHEK, STVHCMHLH, TVHCMHLHEK	3	4:153249384	FBXW7
WTRRRDPRRA	3	1:155178782	MTX1
LLSAPCAQVL	3	19:1004896	GRIN3B
VLSLTSR	3	17:56448298	RNF43
CRRIWSTV	3	17:11998898	MAP2K4
RMQLCTQL	3	17:56435161--17:56435252	RNF43















SPFRKHFRPGT, SPFRKHFRPG, MENISPRKHF, NISPRKHF, FRKHFRPGTV, ENISPRKHF	2	17:7577065--17:7576881	TP53	RQYMDKILTI, YMDKILTL, YMDKILTI	2	17:29858706	RAB11FIP4
LLPTASFL, SLLPKNPRTL, TLPTASFL, FLGWASAQTA, FLGWASAQ, LLPKNPRTL	2	17:73501069	CASKIN2	QWVMHLCW, NQWVMHLCW LRLLLLLLPL, MPPSGLRLLL RELEKILVF, LEKKILVF	2 2	2:230661315 19:41858921 1:37947226	TRIP12 TGF1 ZC3H12A SOX9
ETATAGAPPA, ETATAGAPPAL	2	7:100285170	GIGYF1	QEQAARQAA, QEQAARQA VSADSGLLV, SADSGLLV, VSADSGLL	2 2	17:70117710--17:70117715 16:624114	PIGQ
VFSPSLQNHYL, FSPSLQNHYL, GVFSPSLQNHY	2	17:42232679	C17orf53	SWAPKTSV LEYNLVC AVALQSPL, RAGNPAAAL	2 2 2	1:156715104 6:56915605 3:139258508	HDGF KIAA1586 RBP1
RQMGSSLLVSM, VSMKNPYHL, RQMGSSLL, SMKNPYHL, KRQMGSSLLV	2	10:63958149	RTKN2	KMKKAHFLKTW, FLPSAAQKM	2	16:68835781	CDH1
AMAPETTLW, MAPETTLW SLRTDCLLAV, SLRTDCLLAV	2	22:20130522--22:20130515	ZDHC8 PLK2	FPERSRVRM, RSRVRRML, RVRRLAGSV, FPERSRVRRL, RSRVRRLA	2	2:242149010	ANO7
QMIWAFYLKMM, LQMIWAFYLKM, YLKMMYHIF, QMIWAFYLKM	2	1:35972480	KIAA0319L	MNGGGASLNL	2	7:100285170	GIGYF1
AAAALLL, AHAAAALLL ILFSSVYF, LFSSVYF	2 2	2:43452439--2:43452464 1:111216188	ZFP36L2 KCNA3	TSMKMKMGY, MSKMKMGY	2	12:41967381	PDZRN4
MSPPGRTQL, SMSPPGRTQL, KSMSPPGRTQL	2	12:124848228	NCOR2	YAALLTKTNI TRMPGIPAGL	2 2	3:7620629 17:61781804	GRM7 STRADA
MQWNNKMMAM, TMQWNNKMMAM	2	3:77657038	ROBO2	KRNYLSELM, KRNYLSEL MSISLVMAI, YMSISLVM	2 2	1:39759288 2:241569692	MACF1 GPR35
VRRKVPRAWL, RRKVPRAWL	2	2:43452464--2:43452439	ZFP36L2	KAARKARDREL SRDGPARPYRL	2 2	19:2226772 X:153039502	DOT1L PLXNB3
NRKPHPTF	2	5:174156219	MSX2 LUC7L2, C7orf55- LUC7L2	SRDKLPRPPL DPQARAVHL	2 2	1:207195389 2:239050033	C1orf16 KLHL30
TEYARVTF, TEYARVTFSTV	2	7:139056179	ADCYAP1	LLSSSWAL, ALALLSSSWAL, ALLSSSWAL	2	12:14019044	GRIN2B
YRPAGRRDVTH, RRDVTHGIL, GRRDVTHGIL	2	18:908273	LRRK2 MDN1	IPASLNDTAL FYTLVSEGLV	2 2	10:15255561 5:140481456	FAM171A1 PCDHB3
RTTCHSIL	2	12:40713870	LRRK2	WLPSPRQKTL, LLLASGAPRY, WLPSPRQKTL, LPSRQKTL,LL, WLPSPRQKTL	2	16:30505572	ITGAL
AAFFNFVM, LAFFNFVM	2	6:90415853	NEB	KYEQLALDL, KYEQLALDL, QLALDLFSECY, YEQLALDL, REAKYEQLAL, REAKYEQLA, REAKYEQL	2	11:2435956	TRPM5
KTAGNQISOR	2	2:152390743	PIGK	FAAARVDVF	2	2:179472135	TTN
QFYSFNIMAL	2	1:77627340	CASP8AP2 WNT9A	TFCDVFWL, CFTFCDVFWLL, CFTFCDVFW, RFLCFTFCDVF, TFCDVFWLL, CFTFCDVF	2	11:111742146	ALG9
ILDNYLQADTV	2	6:90578192	ADAM9	SAPCLHGASCL	2	9:126128253	CRB2
WQWGAETTL	2	1:228111954	GOLPH3	RRPIAQWHPL, ARRPIAQWHPL	2	11:1858572	SYT8
YQMDVYKEPL	2	8:38874818	F2RL3 PTPLA DHX57 IARS2				
HIYQMDVY, HIYQMDVY	2	5:32126695					
HYQLRNVWERL, LRNVWERL, YQLRNVWERL	2	19:17000632					
LATADLLL, NLATADLLLAL	2	10:17659131					
GFLATAWLF	2	2:39074185					
FPVDQFFLKM	2	1:220267581					
MRWGLRPL, LRPLGPGAAAL	2						
SEVLAAGA, SEVLAAGAVF, SEVLAAGAV	2	10:71906150	TYSND1	VSRATQLAF	2	10:12136141	DHTKD1
FQMTGSTL, YSFLTTFQM, TTFQMTGSTL	2	6:71004213	COL9A1	MVEDKAL, VEDKALF EEYIIQTL, WEYIIQT, WEYIIQTL, EEYIIQTL, EEYIIQTL, WEYIIQTL, WEYIIQTL, EEYIIQTL, EEYIIQTL, EEYIIQTL	2 2	2:169746017 6:118596709	SPC25 SLC35F1
EADSKAY, ITEADSKAY	2	14:32561296	ARHGAP5	EIRQLSSKTL	2	14:75230947	YLPM1
MFFVAISF, YMFFVAL	2	12:63541343	AVPR1A	YIIRREGAM, YIIRREGAMGK	2	5:45303797	HCN1
IYMFVAISF, YMFVAISFKT	2	3:5809788	FLNB	KTDPAPEPQFK	2	16:74773946	FA2H
TFQRAPLKF	2	2:43452439--2:43452491	ZFP36L2	SQNFALTKHHW, FALTKHHWLIL, FALTKHHWL, ALTKHHWLI	2	8:32453511	NRG1
RAVPHLSYHR	2	13:109661386	MYO16	HSRVVPSR, AAHSRVVPSR	2	18:3452223	TGIF1
FFSRSHLDF, DFFSRSHLDF, FSRSHLDFSPY	2	22:19839750	C22orf29	WTEPECGF	2	2:202344861	STRADB
RQQGPHIPI, CRQQGPHIPI	2	5:112174117	APC	NSVIKCDGFY, VIKCDGFY	2	1:173155919	TNFSF4
SENQIGHVLCL, SENQIGHVL	2	9:126128253	CRB2	KENTLIL	2	10:100995386	HPSE2
APCLHGASCL	2	11:31436427	DNAJC24	FWSQFFL, SYLKTMYSSLF, FLQCCHHHH, MYSSLFWSQF, YSSLFWSQF, KTYMYSSLF, YSSLFWSQFF, YLKTMYSSLF, KTYMYSSLF	2 2	6:102503432	GRIK2
VEECVQKFIK	2	9:214706	C9orf66	IPTEKLREM	2	11:61290608	SYT7
SGYWGRRAL	2	10:104176197--10:104176203	PSD	REHREWEI, REWEIQLVN, REWEIQL, REWEIQLVNES, REHREWEIQL	2	7:139056179	LUC7L2, C7orf55- LUC7L2 ZDHC8
WPHSSEDLTL, WPHSSEDL, WPHSSEDL	2	11:111742146	ALG9	WPDTHPTCI	2	22:20130522	
RTEHTTSSM	2	1:203037706	PPFIA4	LGKQYWI, QYWPIAF, ELGKQYWI	2	3:30713643	TGFBR2
FNHNTLAL, FNHNTLALIL, ALDENFNHNTL, FNHNTLAL	2	3:77657038	ROBO2	RRVEPQTPWV	2	6:26091204	HFE
FLARSWNT	2	1:32800539	MARCKSL1	EEAALCPA	2	17:7462459	TNFSF13
ILFQEAFOI, FOIERPVL	2	14:55429791	WDHD1	KAHAFVVQK, HAFVVQK LPEALHEAL, LPEALHEA	2 2	8:144997927 11:64083221	PLEC ESRR
SRSWKLIL, KYASRSWKL, KYASRSWKLIL	2	16:1250389	CACNA1H	YSELSGDV	2	1:115267948	CSDE1
RRELVPCTL	2	12:121432118--12:121432115	HNFA	WWPARRGPL	2	3:114058003	ZBTB20
RPVRLQKYPQA	2	9:2824764	KIAA0020	MNGGGASL	2	7:100285170	GIGYF1
MARPRGTG, GMARPRGTG	2	2:43452439--2:43452244	ZFP36L2	PEWKCSPL, PEWKCSPL AQRPRGHPAL, QRPRGHPAL RPRPARPPA, RAGPRRPPA, LPRAGPRRPPA	2 2 2	11:10328153 11:76751585 16:88599701	ADM B3GT6 ZFPM1
VRGLLVGLV	2	8:104337567	FZD6	VPLRIHFCV, CPVHRPPW, SPVPLRIHF	2	7:128852004	SMO
GRNQEKLNKFM	2	3:119720928	GSK3B	KLAEFLTS, KLAEFLTSWI KSYWEDYHQF	2	5:138643806	MATR3
KLDCSDELVTI	2	10:119134615	PDZ8	HVAHVHCYQY	2	4:153247288	SLC44A5
RASEGRFY	2	22:50297991	ALG12	GQRCAITL, TRGQRCAITL, GQRCAITLWF	2	1:43212981	FBXW7
TTRGRMCSR	2	1:225211543	DNAH14				LEPRE1
ILSEHSRTTLF, FLLERQQM, SRTTLFLL	2	12:58157486	CYP27B1				
WGDAWQSLNCK, AWQSLNCKWLW, WQSLNCKWLW, AWQSLNCKW, VWGDAWQSL	2	3:168833257	MECOM				
KEATSNQDL, KEATSNQDL	2	3:52550119	PCNT1				
QRWTPAPTAM	2	21:47754665	STAB1				
HPAEQCGM, HPAEQCGMF	2	12:53207602	KRT4				
HWLWVWVWGL, RHWLWVWVWGL, WWWVWVWVWGL	2						



VPREKRAQW, VPREKRAQWV, QWVSVATL	2	9:137677855--9:137688741	COL5A1	VIDKMNKL	2	15:62233987	VPS13C
LLHSWISL, CLLHSWISL	2	1:35370639--1:35370731	DLGAP3	KIQNEGIG, IQNEGIG	2	7:87479241	SLC25A40
KTSNHLIF	2	10:25861759	GPR158	RRLGHNWSI, LRLGHNWSI	2	1:17266586	CROCC
GVFEYHNWVY, WYDDEEATDLL	2	17:27977745	SSH2	LLMQEITAM	2	6:152644655	SYNE1
YADAGILY	2	1:197073231	ASPM	TMCECVPV	2	20:57767560	ZNF831
RLVSTLNFA	2	10:94243045	IDE	ILNGISAL, YILNGISALR, YILNGISAL, IRYILNGI, KQIRYILNGI	2	7:22767227	IL6
YQNEEEEAAY	2	4:27019558	STIM2	IDNHLHV	2	12:78591108	NAV3
STPAGFHPV	2	12:123351891	VPS37B	RAVARMGQGM, RAVARMGQGM	2	17:79803764	P4HB
KTDKVPPFK	2	6:151673370	AKAP12	LRREKSNL	2	1:17266586	CROCC
IRAKTASI	2	14:27066542	NOVA1	AASSRAQVLAL	2	6:5260936	LYRM4
FFRFRGRL, VRRFRFRGRL	2	19:54974318	LENG9	SLKSHLLKY	2	2:179529600--2:179528765	TTN
FATWSALV, FFFATWSALV, FFFATWSAL, FFFATWSALVRL, FFFATWSAL, FFFATWSALV, FATWSALVRLF	2	14:55818554	FBXO34	LPYPFHVL, YPFHVLAL, ISACPRLL, LPYPFHVLAL, ISACPRLLPY	2	17:40939870--17:40937417	WNK4
VRHHPWCWSP	2	5:14487781	TRIO	FSINSDIWSY	2	9:94486762	ROR2
HVVDIHTSPA	2	2:74590132	DCTN1	FVVCCTGWL	2	3:32554549	SUSD5
ARLARTAI	2	2:43452623	ZFP36L2	MAISLTAL, MMTMAISLTAL, FTCMNTMAISL, MMTMAISLTA, MTMAISLTA, MTMAISLTAL, CMMTMAISLTA, FTCMNTMAI, MMTMAISL, CMMTMAISL, MAISLTALCAA	2	20:31384651	DNMT3B
VTYHHHL	2	19:33202775	NUDT19	VASDVTKQL	2	2:179454575	TTN
ATEHSSLH	2	17:72350412	KIF19	HLALTKGKRA, GRIHLALT	2	19:6737481	GPR108
KQLKPSEKYL	2	5:112175594--5:112175596	APC	YAHPSAF, KYAHPSSAF, YAHPSAFAPK	2	5:173317785	CPEB4
FQISTYQA, LLAVVIQFQI, STYQAQLRI, LAVVIQFQI, STYQAQLRISL, CLLAVVIQFQI, FQISTYQAQL	2	5:57753012	PLK2	SPLLEWQWVM	2	2:230661315	TRIP12
KITTANVVY	2	14:30100143	PRKD1	VMPFDTSTL, LVMPFDTSTL	2	6:51890015--6:51889974	PKHD1
ALMRSHWPSA	2	11:64457919	NRXN2	AQCPSPVL	2	8:145625525	CP5F1
YQAQLRISL	2	5:57753012	PLK2	SEVSRISKVL	2	12:106634007	CKAP4
FATANRGNL	2	1:246670481	SMYD3	AADVQLTH	2	1:66829220	PDE4B
LDFDVTDNQI, NQIYWTDI	2	12:12317235	LRP6	AREASLLL, REASLLPSW, REASLLPSWV, EPAAREASL, REASLLLP, REASLLPS	2	16:2070164	NPW
VRGSSRGPVL	2	1:161696782	FCRLB	FQDLQNDAPV, LQNDAPVPY	2	19:48879376	SYNGR4
MLDMAECEGIV	2	1:29641954	PTPRU	MYQVQSPM, MYQVQSPML	2	1:147092566	BCL9
MVRWAAASKL, MVRWAAASK	2	19:52715982	PPP2R1A	YKFSNTPKNVL	2	19:12089902	ZNF763
FLNPRKATQSF	2	6:80383444	SH3BGR2	APSTEWWTMV	2	6:116836954	FAM26E
MEHRGPPQNI	2	X:112065639	AMOT	LPAPHCQW	2	1:204438071	PIK3C2B
YMQPPRHYL, MQPPRHYL, YMQPPRHY, LYMQPPRHYL, HYLCSM	2	11:6590002	DNHD1	FPGSEAREAH	2	19:1065018	ABCA7
HSHKRNCLQK	2	15:51860704	DMXL2	KIMCQLLFRQF, CQLLFRQF, IMCQLLFRQF	2	X:41555920	GPR34
MLHSCRIQ, EQMLHSCRI	2	X:56591874	UBQLN2				
ALSPEPPAYSL	2	X:3631167	PRKX				
RQNRFASSK	2	8:109796543	TMEM74				
VEGQIHKLCL	2	13:31232879	USPL1				
LMVWVWHQV, MVWVWHQV, FSYLMVWVWV, YLMVWVWHQV, AVFSYLMVWVWV	2	9:19528054	SLC24A2	HMPRTALCY, ARPWFPRHM, RHMPRTPAL	2	19:50926264--19:50926165	SPIB
LLPSPAPHVL	2	10:100186986--10:100186987	HPS1	STPPGPGPAV	2	20:21493012	NKX2-2
APGERRRIGF, APGERRRIGFL	2	10:17659131	PTPLA	WSPHTSAQSPV, HSAQSPVPL, AQSPVPLRHF	2	7:128852004	SMO
ARPWSSAPTRM	2	19:5231449	PTPRS	LEDKRKNPTLW	2	8:28989877	KIF13B
MMGQNGNLYFA, MMGQNGNLYF	2	X:153136382	LICAM	INDKPYST, LEIKPYSTKMK	2	16:15131990	NTAN1
HPSRSTWTV	2	19:17838753--19:17838385	MAP1S	ATCGCPSSRR, ATCGCPSSR	2	17:70119913--17:70119870	SOX9
FDKFLQDV, FDKFLQDVSSV, FSHKDFDKL	2	2:32475708	NLRC4	FANFDQFIQL	2	3:164737505	SI
TRPSRAREAL	2	9:98211549	PTCH1	APAFHTGGPLA, APAFHTGGPL	2	22:28196403	MN1
EWKVKFPFL	2	15:45003781	B2M	FSLQREELRAV	2	19:55598724	EPS8L1
LLGDPFHPL, GLLGDPFHPL	2	19:10116508	COL5A3	KLALCETPAPL	2	21:35183447	ITSN1
HLLLHTEV, VNHHTLLL	2	7:99145140--7:99145142	FAM200A	FLTDREVQL, LTDREVQL	2	2:11362292	ROCK2
YGHSTVHCM	2	4:153249384	FBXW7	RVVGEVFEVPR, VRSRVVGEVPR	2	20:49197838	PTPN1
TRAGTRGSLV, TRAGTRGSL	2	16:2059622	ZNF598	RAAAGVSV, FAATRAAAGV	2	20:31384651	DNMT3B
TASPHSSSF, CTASPHSSSF, CTASPHSSSFL, FLPVPTGRSL, ASPHSSSFLPV, HSSSFLPV, TASPHSSSFL	2	17:79803764	P4HB	LVRQQLRL	2	2:43452491--2:43452464	ZFP36L2
SRNYNRRYQI, NYNRRYQISI, YQISICPL, SRNYNRRY, NRRYQISICPL, NYNRRYQI, RRYQISICPL	2	10:121341501--10:121341690	TIAL1	SRWWSAPSRWL	2	22:50900047--22:50899955	SBF1
YLVDHKVHF	2	2:112922646	FBLN7	QRLLYVYI, YIETNVF, LYLDKVFQRL, LYLDKVFQRL	2	18:12699829	CEP76
CDLQSSLY	2	6:32811743	PSMB8	GRRLGCRV, GRRLGCRVQAL, GREARGRL, REARGRRL	2	9:140100317	NDOR1
VEEASVPA, LEVEEASVPA, LEVEEASV, EASVPA, VEEASVPA, LEVEEASVPA, EASVPAEPA	2	2:239039057	ESPNL	FQILFTMTLI, FRLFIQNLFF, FIQNLFFQI, RLFIQNLFFQI, FQILFTMTL, ILFTMTLI	2	3:98506942	ST3GAL6
SVPVSPV, DHSVPVSPV, HSPVSPV	2	19:17838385--19:17838753	MAP1S	WRTAPLLASL	2	1:27100176--1:27100350	ARID1A
GSVEVIQTL	2	19:51217155	SHANK1	LYLPRKVLQM, LYLPRKVL	2	5:112175756	APC
QAAVDHTTEL, AAVDHTTEL	2	9:95480987	BICD2	FFHAMHVV, MVFFHAMHVV, MVFFHAMHVV	2	4:4285458	LYAR
IQIGLIGI, WHIQIGILI	2	12:66622063	IRAK3	YPMSSSGL	2	19:39663913	PAK4
EESLPGAM	2	5:137803132	EGR1	YVSATTGAI	2	5:174938494	SPXN1
VYEHLEKAAM, YEHLEKAAM, YEHLEKAAMH	2	12:101705568	UTP20	GPAGRIGGNF, GPRLGAPAGRI	2	18:3452223	TGIF1
FVSDAVATY, FVSDAVATYY, FVSDAVATYYL, TYFVSDAVATY	2	12:133249847	POLE	AWVPAPAGWDL, AWVPAPAGW	2	17:39780697	KRT17
FALRPSTV, FALRPSTVPF, STVPLTRAV	2	15:75942664--15:75942736	SNX33	FILGRNRTDVM	2	19:52888438	ZNF880
DRSPQAPLRL	2	X:129190011	BCORL1	GTPPWWPFR	2	10:100186987	HPS1
				MASGPASSW	2	3:52550119--3:52551362	STAB1
				GETGRPTLNQM	2	17:48619249	EPN3
				MQHVRKVDTV, MQHVVRKV	2	3:9426224	THUMPD3
				DRSPQAPL	2	X:129190011	BCORL1
				ASRVWPSTTTL, SRVWPSTTTL	2	6:13206135	PHACTR1
				REAFLEQMMGL, LEQMMGLEAV	2	9:133948049	LAMC3
				AEFRCPGSL, AESPGAEF	2	17:7462459	TNFSF13

MRCWSWSSSL	2	19:16314384	AP1M1
NMQTIWVTGRK, VEERRNMQTL	2	3:121209199	POLQ
QTIWVTGRK, RRRNMQTIWV,	2		
QTIWVTGRK	2		
LSYHKLAWAR, KIGLSYHK,	2	6:90387403	MDN1
HLAKIGLSYHK	2		
TELGFTLLKL, TELGFTLLKLL,	2	8:67752239	SGK3, C8orf44-
TELGFTLL	2		SGK3
NFIDSKEVYR, KVVQNFIDSK,	2	10:50684305	ERCC6
FIDSKEVYR	2		
FWPQRCAQV, FWPQRCAQVL	2	6:46656871	TDRD6
RRWRCSQTTSL	2	5:131042147	FNIP1
KLYCLIKI, IQKLYCLIKI	2	10:128908585	DOCK1
ALQDLAPPAPL, ALQDLAPPA	2	18:72998443	TSHZ1
WPARRGPL	2	3:114058003	ZBTB20
RRTSKWMEML,	2		
MRRTSKWMEML,	2	17:5036224	USP6
RRTSKWMEM, MRRTSKWM,	2		
MRRTSKWMEM	2		
GRRVCLFL	2	3:65346916	MAG11
SPFRSVGVAS, MENISPFPSV	2	17:7577065--17:7576881	TP53
LYQESLPTLF, YQESLPTL,	2		
LYQESLPTL	2	6:10557410	GCNT2
MQDPLLSL	2	3:168833257	MCOM
NRKIINQL, NRKIINQILL,	2	16:46836877	C16orf87
NRKIINQLI	2		
KSSNFRRYK, SSNFRRYK,	2	21:38302646	H LCS
LLKSSNFRRYK	2		
KYLMKPLI, TWPLKYL	2	12:52379121	ACVR1B
FTLPFNMV, FTLPFNMV	2	18:43316498	SLC14A1
MEQGHLMQ	2	8:125109516	FER1L6
HLVGIALPEVM	2	1:46120890	GNBP1L1
LEQLSQGA	2	19:17393530	ANKLE1
FTAQYRQLF, AQYYRQLF,	2	17:29120666	CRLF3
FTAQYRQL	2		
VAPQPQLL	2	2:43452464--2:43452439	ZFP36L2
KENVENRAEM, AEMALLDSL,	2		
VENRAEMAL, AEMALLDS,	2	3:48612871	COL7A1
AEMALLDSL, VENRAEMALL,	2		
AEMALLDSL	2		
VRAAWAASAV, QQVTGIVAV	2	17:73501069	CASKIN2
KNISLVIGMFI, ISLVIGMFI,	2	5:5486894	KIAA0947
VKNISLVI	2		
FGAGETGRPTL	2	17:48619249	EPN3
MFLKKTHLQL	2	16:15131990	NTAN1

RMYGWNFRV, KRMYGWNFRV	2	14:56137474	KTN1
APRSTSRPT, RPTGRPAT,	2		
RPTGRPATVA	2	16:2059622	ZNF598
AEIWFGLSS, AEIWFGLSSAS,	2		
AEIWFGLSSA, AEIWFGLS	2	9:139945517	ENTPD2
SQEMFSQALL	2	15:91304139	BLM
RIYITNYYY, ITNYYYGNTLV,	2		
RIYITNYYY, YITNYYYGNTL	2	1:161954657	OLFML2B
LRLRRMHV, LRRMHVCGSSL	2	16:1273490	TPSG1
STWHSVLM, RSTWHSVLM,	2		
RSTWHSV	2	16:50745399	NOD2
SLKNLSWK, QSLKNLSWK,	2		
QSLKNLSWK,	2	7:26245989--7:26245999	CBX3
RVKKLRKQSLK, SLKNLSWK	2		
VFKFCAPRLW, KFCAPRLW	2	1:201983066	ELF3
LENRDLPSRV, WMSQVLDL	2		
RVLRGSRAAM,	2	3:48612871	COL7A1
CLWMSQVLDL	2		
KALITRRSSL, LRSPSPKAL	2	11:618971--11:618999	CDHR5
HRLSLVDPDL	2	15:94841631	MCTP2
MRATGPPPPHY	2	19:39330958	HNRNPL
FLSPWSPAL, WPSPAIPL,	2		
WPSPAIPL, SPWSPAIPL,	2	6:33263965	RGL2
FLSPWSPA	2		
MTLPAPTACSR	2	22:20130522	ZDHHC8
LVIDTMTVE	2	13:46288409	SPERT
EMEDQKHSY, LLEMEDQKHSY,	2		
MEDQKHSY	2	1:209948748	TRAF3IP3
IYWTGRKL, IYWTGRKIDPV	2	4:123283194	KIAA1109
SSPPPLLL	2	8:144886852	SCRIB
QPLLPAHPL, QPLQPPTLQPL,	2		
QPPTLQPL, LPAHPLTV,	2	17:70120194--17:70119909	SOX9
LPAHPLTV	2		
CRKSDASSL, CRKSDASSLM	2	11:9172291	DENND5A
YGDIIQQDF, YGDIIQQDFL	2	3:160804109	B3GALNT1
RTMEDAAHM	2	3:52551362--3:52550119	STAB1
TMTVWMAV, GTMTVWMAV	2	12:57595335	LRP1
ALMVPALL, TAGAPPAL,	2		
TATAGAPPAL, ALMVPALLA,	2	7:100285170	GIGYF1
TATAGAPPALM	2		
WVADSNVFTK	2	1:220311332	IARS2
RTSWPSALAY, RTSWPSALAYL,	2		
RTSWPSAL, RTSWPSALAY,	2	5:140176838	PCDHA2
TSWPSALAYL	2		

QMLAVSATYPK	2	1:112303389	DDX20
VASISAVSLE	2	1:22191454	HSPG2
QEKLDQYSVI	2	6:152679555	SYNE1
RVPSVTLV	2	18:44400988	PIAS2
LSCVVFINK, LSCVVFINKK,	2		
PLSCVVFINK, CVVVFINKK	2	9:95610657	ZNF484
CFPGNQHL, FPGNQHL	2	11:124845049	CCDC15
HQFVWWDISK, CRILWGHQF	2	9:134073007	NUP214
TRCSWARPL	2	4:860923--4:861066	GAK
LPPSPSTCSM, LPLPSPST,	2		
SPSTSCSM	2	16:2059622	ZNF598
MERCTHCT	2	16:2059622	ZNF598
EASKKAMGPL	2	7:100285170	GIGYF1
IENSSIQELF, IENSSIQEL	2	2:210558484	MAP2
FSKRCDSPPLV, FSKRCDSP	2	11:4674564	OR51E1
CTWVRGPTAPR	2	X:1407724	CSF2RA
SLHFLCWSL, FLPGSTPSLHF	2	16:84213651	TAF1C
KLDFETMSLY	2	5:140626087	PCDHB15
KLLGQLYK	2	11:33054956	DEPDC7
RSWMWNQLF, SWMWNQLF,	2		
NQLFLLEEY, RSWMWNQLFL,	2	5:31267760	CDH6
RSWMWNQL, WMWNQLFL,	2		
RSWMWNQLFL	2		
YHHPQAPV	2	14:105173873--14:105174013	INF2
AEWPLALAE	2	16:2059622	ZNF598
KENLIGTLL, KENLIGTL,	2		
KENLIGTLAI	2	1:24766677	NIPAL3
SAPHHVLPAV	2	10:100186986	HPS1
MVPWGMEAL	2	14:104642555--14:104642401	KIF26A
WMVPWGMEAL	2	14:104642401	KIF26A
IRPQSPPEL	2	16:677579	RAB40C
DLEFHGMIFY	2	6:168265256	MLLT4
LPLRRRPGPW	2	10:124895627	HM3
HALQILLV, RVLRATHAL	2	10:112838962--10:112837855	ADRA2A
LLSFVPGGYPA	2	15:45003781	B2M
HRPLCQRF, RFPTLTVSRWM	2	16:14346300	MKL2
GQWMAHMAL	2	1:27100176--1:27100350	ARID1A
ARLFAILLL	2	20:43976991	SDC4
ITFLFDSL	2	8:124799557	FAM91A1
SLPPPPPSQL	2	7:101839973	CUX1
STFEGAKML	2	6:87967866	ZNF292
LLSLPLDSSPL	2	3:77657038	ROBO2
KMDLDGMLTV,	2		
GMLTVIGQLV	2	17:76046980	TNRC6C
LLLWVENL, MLLLWVENL	2	14:103593950	TNFAIP2

NPHIQRL, SEYLLGNPHI,	2		
NPHIQRLNNT, YLLGNPHIQRL	2	4:8607830	CPZ
HPQWAPHSAGL, MPPLHPQW,	2		
HPQWAPHSA	2	17:48433967	XYLT2
RQPGLSA	2	1:204159787	KISS1
HPSPFSLG	2	2:204305618	RAPH1
KLSPCLATW	2	17:61560426--17:61560412	ACE
FYISSTVCF, FYISSTVCF	2	3:182603763--3:182602674	ATP11B
YRCEGDTPTI	2	7:81346553	HGF
NISSRVL, SRTRVLMV	2	5:140801569	PCDHGA11
HTSTVCCMHLH	2	4:153249385	FBXW7
VQDRVPHL	2	2:43452464--2:43452439	ZFP36L2
AESPGAAL	2	17:7462459	TNFSF13
FRITRGPRAA, RRSVSCF	2	7:42005573	GLI3
WATSGAATPV, WATSGAATPVI	2	9:16436658	BNC2
TLLPSTSSL	2	9:5921755	KIAA2026
STMAPGSSAAV, TMAPGSSAAV,	2		
LASPSLSTSTM	2	11:618999--11:618971	CDHR5
SRHGTQPL	2	5:141046035	ARAP3
NSCQTTTY, FQNSCQTTTY	2	1:82408841	LPNH2
STFNVMQNF	2	8:12957475	DLC1
LATPPPLL	2	2:60688969	BCL11A
SAQSLTK	2	3:114058003	ZBTB20
YVAEAGPPPA	2	14:74967607	LTBP2
SLMEQPHLK, SLMEQPHL	2	13:53049034	CKAP2
SEQADKVS	2	8:70667685	SLC05A1
FTNKENL	2	9:86617158	RM1
HYPCPPAL	2	11:64507638	RASGRP2
SEMAVHRTHS, SEMAVHRRT,	2		
SEMAVHRR, SEMAVHRRH	2	16:30566747	ZNF764
ARMAQAYVL, RMAQAYVL	2	18:21453109--18:21451595	LAMA3
ALNKHSLE	2	16:12136879	SNX29
KMNFVTGTL, KMNFVTGTLAI	2	6:160485488	IGF2R
REIDVLEW, LEWELNILIF,	2		
WEIDVLEWEL, LEWELNIL,	2	1:233497916	KIAA1804
LEWELNIL	2		
ELSRCEPEY, LSRCEPEY	2	11:118770651	BCL9L
QSPHHAGHLR	2	16:68026995	DPEP2
KIFWPHDDPA	2	14:104642401--14:104642560	KIF26A
LARMGGAASF	2	7:91732038	AKAP9
CEGFKLHF	2	7:115874657	TES
FEMVTAGDMRV, FEFEMVTA	2	1:237729972	RYR2
NPSSWLVS, FVVQNPSSWL	2	4:154513664	KIAA0922







VRALAASGTWF, ALAASGTWFL, ALAASGTWFL, ALQSPAV	2	1:35370639--1:35370731	DLGAP3
WSWCGTSQTY	2	X:129190011	BCORL1
AYEIHSDSF	2	2:179611639	TTN
HRASMQPIQI, HRASMQPI	2	11:71715795	NUMA1
FVIPPQTL	2	16:4944500	PPL
KIIGHFLFW	2	7:106513165	PIK3CG
ATASPSPL	2	9:98209617--9:98209593	PTCH1
LLKIPRTLK, SLLKIPRTLK	2	6:89793677	PNRC1
SAVMSANAAY, AVMSANAAY	2	8:22054260--8:22054259	BMP1
NEQKARGAAL	2	7:150698398	NOS3
KMIKWTL	2	14:92472698	TRIP11
FEIEMNEI, FEIEMNEITNV, IEMNEITNV, IEMNEITNVI	2	18:28914134	DSG1
RPQLRRWL	2	1:85040070	CTBS
KSNPGQLQY	2	7:107823349	NRCAM
KQVGFISL	2	2:152522864	NEB
CSHFPTLL	2	16:68835781	CDH1
VTETNNSPLM	2	19:50547943	ZNF473
ARPCLPQAM, ASARPCLPQAM, SARPCLPQAM	2	1:53974841	GLIS1
RRNPTQGGLL	2	20:3870079	PANK2
YIIQTLRSVEF	2	6:118596709	SLC35F1
KRAQWVSVATL, KRAQWVSV	2	9:137688741--9:137693829	COL5A1
ASDGSDTSM, TASDGSDTSM	2	X:75649461	MAGEE1
LPWMPWGMEA, VPWGMEA	2	14:104642555--14:104642560	KIF26A
TAYWALAGL, TAYWALAGL, HPLVATQAL, HPLVATQALL	2	1:116569517	SLC22A15
LRHEASRPLR, LRHEASRPL	2	1:228559450	OBSCN
WPLASPPA	2	16:632283	PIGQ
VIQDIFFFV, GVIQDIFFFV, IQDIFFFV	2	8:10583646	SOX7
LLMRPAGAL	2	5:72199545	TNPO1
FSDKMGTL	2	9:114393784	DNAJC25, DNAJC25-
SQIEEAV	2	1:154313476	GNG10
LTSTPNVHMV	2	8:99115125	ATP8B2
YTFASEPNNV, YTFASEPNNV, FASEPNNV, FASEPNNVF, FASEPNNVF	2	3:12645699	HRSP12
HRLSQLKPPVL	2	2:238249185	RAF1
KRERVDSLK	2	22:50962782	COL6A3
	2	5:112175649--5:112175552	SCO2, APC

VTHPPWAAAM, WAAMASACSL	2	16:67325658	KCTD19
WSSTCCGGSM	2	16:2059622	ZNF598
TMAKTSAV, VTMAKTSAV	2	19:31768228	TSHZ3
VMMLEVCRSI, LEVCSRIQEF, TVPEVMMLEV, MMLEVCRSI	2	16:71602123	TAT
FTLRWSYNEL, LRWSYNEL, LRWSYNELGGL, LRWSYNELGGL	2	8:73848578	KCNB2
IPGAHPASSAW	2	1:154942910	SHC1
AEVKHLHLLL	2	5:112175572--5:112175553	APC
YVMAGLGSPIY, ILDEAYVMAGL, YVMAGLGSPIY	2	17:37881000	ERBB2
DELFTMMRSFI, LFTMMRSF, GFLSKDELFL	2	15:45396172	DUOX2
FYFIPSQL, FYFIPSQLCEI, YFIPSQLCEI	2	11:59633897	TCN1
LAPPPSAPL	2	14:75230947	YLFPM1
CSSVSSSDGSF	2	3:78666908	ROBO1
IVHNLFVLR	2	4:3182271	HTT
QIQAAATLQAK, FQIQAAATL, YSMESRTHFQI	2	1:51753908	TTC39A
CRVRHERYFLL, VRHERYFLL	2	14:74004517	ACOT1
ERNRCVML, VMLFRQLHQEL	2	12:121746350	ANAPC5
NYWKRHIEVVM, YWKRHIEVVM, NYWKRHIEV, RHIEVVMREY, KRHIEVVM, KRHIEVVMREY, NYWKRHIEV, YWKRHIEV	2	7:73021716	MLXIPL
RWWRAAGF, ARWWRAAGF	2	2:38301663	CYP1B1
RMPARRESRFW	2	18:34205516	FHOD3
WMWAVEHSLPR, FLWMWAVEHSL	2	10:134158106	LRRC27
KDLAWLYFKIF, LAWLYFKI, KDLAWLYFKI	2	3:186281890	TBCCD1
RPAPRPTA	2	16:88599701	ZFPM1
CRILGVTEI	2	21:45402199	AGPAT3
KLFDILDHYT	2	4:115544340	UGT8
RPRTARAAGAA, AARAARARV, AARAARARVA, RPRTARAAG, RPRTARAA, RPRTARAAGA, RPRPTARA, RPRPTARAA	2	16:88599701	ZFPM1
RTPMITRL	2	22:18300932	MICAL3

MSPSLLDYTM, MSPSLLDY, EMPSLLDY	2	9:134183379	PPAPDC3
EAWWCRCPL	2	18:60639886	PHLP1
IQEVTVNQSL, ILTPLNLQI	2	12:52913636	KRT5
VLFTGILY, SVLFTGILY, VLFTGILYV, ILYVDPVGNV	2	1:216138672	USH2A
ASALPEALV	2	17:80274142	CD7
IIDQLFAV	2	5:13928280	DNAH5
IEGQVQLQI, IEGQVQLQIAV	2	12:46230605	ARID2
RLRRLHRRLP, RLRRLHRR	2	15:59981590	BNIP2
WPCPCSWCTA	2	16:88599701	ZFPM1
SLPRSTWHSV	2	16:50745399	NOD2
WSSSPTPCPK	2	8:22054259--8:22054260	BMP1
KRTWSRPSL	2	14:59112895	DACT1
RDKLPLFLLI, KRDKLPLFL, KRDKLPLFLLI	2	10:63958149	RTKN2
YFQVNITADSL, LRIQPAVKYF	2	1:117556033	CD101
ASACTMPLL	2	17:48433967	XYLT2
FSCMRVASY	2	14:20846338	TEP1
TRMPGPVPA	2	17:61781804	STRADA
SFWPGGYPAY	2	15:45003781	B2M
AEHQAINTI, YRKAHAHQAI, AEHQAINTI, AEHQAINTI	2	3:121155115	POLQ
GLAPETLSA	2	17:46629593	HOXB3
RRSSPPRRPL, SPPRRPLQTL, RRPLQTL	2	1:36643530--1:36643581	MAP7D1
LDLEPGGASAW, LEPPGGASAW	2	19:1004710	GRIN3B
GYCFRMSL, WLRGHETGYCF, YLWLRGHETGY	2	X:39913253	BCOR
ETLNPMYV, MYVPCVKEL, NPMYVPCV, MYVPCVKEL, NPMYVPCVKEL, GETLNPMYV	2	19:10659690	ATG4D
MRLMLAL, STMRLMLAL, MRLMLALL, MSTMRLML, MRLMLALL	2	9:140033961	GRIN1
MQLYMQLLHEI	2	9:129870607	ANGPTL2
LLFPSTAHYL, TAHYLGAYV, FPSTAHYL, LFPSTAHYL, STAHYLGAYV	2	12:8075422	SLC2A3
FLCATEWLT, FLCATEWLT, FLCATEWL, VMFLCATEWL	2	14:54898881	CNIH
IIFDTSWNPSY	2	X:76814235	ATRX
CPLICQQA, VPLCPLICQQA, HPVPLCPL, HPVPLCPLI	2	1:207139176	FCAMR
APQLTITSL, APQLTITSL	2	5:140215022	PCDHA7

GLWPWGAQV	2	20:23066469	CD93
KECQATARKF	2	1:76198353	ACADM
RWISEDLDGF, FLRDWHS, RWISEDLDGFL, WFSIVQTRW, SWFSIVQTRWL, SWFSIVQTRW, FLRDWHS, FSIVQTRWI	2	5:13830840	DNAH5
FRQNELKTTY	2	X:84526620	ZNF711
RTDCLLAV, RTDCLLAV	2	5:57753012	PLK2
FAREDRIRM	2	15:54919114	UNC13C
MQLMAIFKR, MQLMAIFK	2	6:76715225	IMP1
ALRRAACLAH	2	11:76751542	B3GNT6
GELANGLTL	2	2:238296564	COL6A3
ESNKLETICY	2	11:82976919	CCDC90B
FLIQPEEC	2	5:112175788--5:112175755	APC
AEDLLGVAVF	2	1:200378558	ZNF281
WQIYQYNY, KIWIYQY, QKIWIYQY, KIWIYQYNY	2	7:82579967	PLO
VALPQPQPSL, LAAVRGVAL, AAVRGVAL	2	12:111800827	FAM109A
KWCRPWLEQM, KWCRPWLEQML, SFSKWCRPW	2	X:56591874	UBQLN2
SRKHHHKL	2	2:171705836	GAD1
AAAPPVRLAR	2	2:43452439--2:43452491	ZFP36L2
RQPPHHLVPL, RQPPHHLVPL, RQPPHHLV, RQPPHHLV, RQPPHHLV	2	16:30736371	SRCAP
TRTVLQVTL, TRTVLQVTL, RTVLQVTL, RTVLQVTL	2	6:101094534	ASCC3
LRQGRGLL, LRQGRGLL, LRQGRGLL, LRQGRGLL	2	7:99818416--7:99817848	PVRIG
CRSSLPSPTL	2	1:35370639--1:35370731	DLGAP3
FEVRVCACT, FEVRVCACTG	2	17:7577106	TP53
FFSKPKRIKNL, KRIKNSL	2	2:201436992	SGOL2
MERCCTCTG	2	16:2059622	ZNF598
SEGWHWGAAAPM	2	7:120971879	WNT16
RRANKDATAEL, ATAEIIDEF	2	11:116656573	ZNF259
ILCQKLMQV, WLLQGIFSTTI	2	16:87866620	SLC7A5
LEGMILPRAL	2	18:34205516	FHOD3
WRRRGSGTIM, RRRRGSGTIM, RRGSGTIM	2	1:35370731--1:35370639	DLGAP3
SERVMRVQGNV, MRVQGNVYHL	2	1:87805290	LMO4
HRPGTPPPLI, HRPGTPPPLIL	2	2:74687410	WBPI
TRMTVQASL	2	2:220494118	SLC4A3



HQWLALLPL	2	16:28913639	ATP2A1
FQMHMRWQSF	2	19:20044269	ZNF93
GVAFPCPR, CPRSAVDI	2	1:150529443--1:150530506	ADAMTSL4
YSFQVAKDMEF	2	4:55958809	KDR
ALAEPELI	2	18:72775210	ZNF407
LSELTMEI	2	1:39759288	MACF1
LKMMYHIF, LQMIWAFYL, QMIWAFYL	2	1:35972480	KIAA0319L
HQFKSPPEIFY, SFPEIFYL	2	17:42818751	DBF4B
AAPPVRLARV	2	2:43452439--2:43452244	ZFP36L2
SWFNGTEL	2	7:1097183	GPR146
LLSSCSSR	2	17:56448298	RNF43
RLLTRCCSSA	2	6:116783330	FAM26F
MCGSALAFFYR, SALAFFYR, GSALAFFYR, CGSALAFFYR	2	7:20371449	ITGB8
TSQPPQLNLK	2	8:59728228	TOX
ARTWPGIACRV	2	16:2059622	ZNF598
KTYPISEGLTM, TYPISSEGLTM, YPISEGLTM	2	2:54093345	PSME4
VVVVCRPENTK	2	11:28119446	KIF18A
WTSWPTATWWA	2	8:145150876	CYC1
RSWTSKGWR, RSWTSKGWRRR	2	7:100285170--7:100283942	GIGYF1
PHSSGLAL	2	22:31485922	SMTN
YSYRGPQDFNY, YRGPQDFNYFV, SYRGPQDFNYF, YRGPQDFNYF	2	14:72171471	SIPA1L1
KVPVRAWLPR	2	2:43452439--2:43452491	ZFP36L2
LPGGKAEAAA, FPFLSGLPG	2	16:30736370	SRCAP
IAITGGRI, ITGGRIVPR, TTGGRIVPR	2	5:10261684	CCT5
VAVKILLTF, FVAVKILLTF, FVAVKILL	2	6:13306704	TBC1D7
WEPHTVQVTF	2	10:119805617	RAB11FIP2
RERLYQDTSL	2	13:20638677	ZMYM2
APSSAWRF	2	8:120220776	MAL2
TEVPSLTA	2	2:1481231	IRX5
TPSEGRDLA, TPSEGRDLAL	2	16:54967096	OLAH
YLMEFGGTFSI	2	10:15107665	ACVR1
ITHYHEMGLLY, LLYDYLQTLT, HEMGLLYDYL	2	2:158622630	ZNF793
RSHTSMYI, LVRSHTSM	2	19:38028415	SPIB
KTYRWTAL, YRWTALPW, KTYRWTALPW	2	19:50926264--19:50926165	

SSMNPTSL, RSSMNPTSL	2	7:100855927	PLOD3
LFYAKGTGYL, GQFRVSLFY, SLFYAKGTY	2	2:21235259	APOB
QTDSCTFYI	2	11:3123436	OSBPL5
YAPCCLSL, GLSDSYAPCCL	2	22:50315971	CRELD2
HSLEYSLQIQK, SLEYSLQIQK	2	3:115805269	LSAMP
FQLCLHYRYF, CLHYRYFIPGV, YRYFIPGVAI, FQLCLHYRY, YFIPGVAI, YRYFIPGV, YRYFIPGVAI, FQLCLHYRYF, YRYFIPGVA	2	9:120476537	TLR4
MPTLHTQV, MPTLHTQVQRV	2	16:633353--16:633354-- 16:633354--16:633353	PIGQ
LENIKTVI	2	1:76343855	MSH4
LLLGALGL, LLLGALGLKAL	2	18:43419003	SIGLEC15
FSLVHVHQL, FSLVHVHQL	2	19:58084067	ZNF416
RMVRGTQVY, LPLPNLRM, MVRGTQVYDGK	2	12:56478854	ERBB3
IEIVCRVF, IEIVCRVFS	2	14:36217850	RALGAPA1
CQKTLTLHQI	2	19:37118166	ZNF382
LLPAPSAVL, SWISVPCPNLL, LLPAPSAVL	2	16:30736371	SRCAP
STNSDGSV, STNSDGSVTV	2	X:8538695	KAL1
HATPQTLQPK	2	16:50745399	NOD2
YWEALGAPEAL	2	19:622336	POLRMT
VVVGAVG	2	12:25398284	KRAS
GRAAARAV	2	2:43452464--2:43452439	ZFP36L2
TWHVAHTL, TWHVAHTF, STWHVAHTF, TWHVAHTFLLM	2	11:57185284	SLC43A3
FLWPGTSPHRL	2	X:128926360	SASH3
GEGPDTFSCSW	2	22:21982892	YDJC
RLTRAHVECL, LTRAHVECL, MLYGNDRFEGY,	2	4:1389117--4:1389384	CRIPAK
FVMFRKSDRM	2	1:37307503	GRIK3
LILAVFSPV, YLILAVFSPV, ILAVFSPV	2	19:47969003	SLC8A2
EVKHLHLL, EVKHLHLL	2	5:112175552--5:112175572	APC
RFPQSLYRGTV	2	11:619789	CDHR5
WRFCGVLG	2	8:120220776	MAL2
LMNLTVLVYQF, QFSRLQPSKF, MNLTVLVYQF, YQFSRLQPSKF, MNLTVLVI	2	5:13830840	DNAH5
LRWLKRDYSYL, IHMDCLRWL, VDLNTNFKKI	2	12:133250289 7:84727134	POLE SEMA3D

TRASCLGWSM	2	19:7592423--19:7592444	MCOLN1
CENSLPYQVSL	2	9:33796691	PRSS3
ATWWCTGAATR	2	2:60688969	BCL11A
FTVPSNRSREV	2	5:112128184--5:112116559	APC
RWAAASKL	2	19:52715982	PPP2R1A
YTVCRFSI	2	3:62254809	PTPRG
LEERGSPOYL	2	6:75875478	COL12A1
YCINLAALSF	2	12:65857005	MSRB3
TVIAGHHCQY, IAGHHCQY, GAHHCQYKLT, Y, VIAGHHCQY, MAMTVIAGAH	2	3:77657038	ROBO2
ATDKWAFFL, ATDKWAFF CSSWRSSSP, SSWRSSSPR	2	1:156912567 6:41555186	ARHGEP11 FOX4
WLWWWIWLGL, FRHWLWWWI, WLWWWIWLGL, WIWGLLQW	2	12:53207602	KRT4
AECNVHSVCI, AECNVHSVCI, AECNVHSV	2	18:7032076	LAMA1
SLHQITFI	2	4:122756323	BBS7
GLELKTINY	2	6:43305257	ZNF318
FMLILSIAT, TLFNSVATFML, FMLILSIA	2	10:94243045	IDE
KLAMKIGGV, LAMKIGGV, SVRSFMDLKIK, FMDLKIKL	2	5:72199545	TNPO1
CPTTAPL, LPSQRNHW	2	17:7577065--17:7577036	TP53
FLKGLALAI, FLLKGLAL	2	9:98209593--9:98209617	PTCH1
SRSVQQLQTSF	2	3:137983011	ARMC8
LRIASQVLI	2	16:88494506--16:88494491	ZNF469
RRQKKEPLI, RRQKKEPL, RRQKKEPLI	2	5:31322961	CDH6
SMDASSKM	2	10:93220255	HECTD2
LENKLKAAAYM	2	15:56739117	MNS1
ALDKPCHQAEV	2	5:112175552--5:112175553	APC
TRNPRSL	2	1:156715104	HDGF
KDHIFSNLV, FSNLVNIKDF, KDHIFSNLV	2	7:83764139	SEMA3A
LPMNWSPL	2	15:65678360--15:65678319	IGDC4
VRPPGPPCL	2	5:14487781	TRIO
RETPQNHS	2	18:19144267	ESCO1
TPLLNGLDYTV, TPLNGLDY, LPSHTPLL, ISSLPSHTPLL, LPSHTPLLNL	2	1:180243511	LHX4
LEGGQAEVQL, AEVQLRRNA	2	16:3304463	MEFV
RVCLFLKR	2	3:65346916	MAGI1
ALACSLLEK	2	2:36825137	FEZ2

RLTWGRRR	2	7:102715804	ARMC10
KEICIEKL	2	14:92471873	TRIP11
YGNPIEASLY	2	16:20335551	GP2
REILDGLVEL, REILDGLV	2	7:43918139	URGCP
SROGDVHSDV	2	17:12028657	MAP2K4
RYKDLVLNETL, YKDLVLNETL	2	10:101455842	ENTPD7
STDDQIVSYL	2	6:24566874	KIAA0319
HRNAYQTEF	2	7:94539496	PPP19A
VTANSWLPF, TANSWLPF, SSMPHGVV	2	17:79803764	P4HB
NRHWHWSSGSL	2	2:79349974	REG1A
RPAPSIWGMML	2	8:28210809	ZNF395
CAWASTTRSSL	2	19:16314384	AP1M1
VLNPLPSI, GMFVLNPL, VLNPLPSIML, FVLNPLPSI	2	22:38895455	DDX17
RYFLKRQEM, YFLKRQEM, LRRYFLKRQEM	2	13:95735432	ABCC4
TVSYLKTQK, MTTVSYLKTQK, VSYLKTQK, GNMVTVSYL, MTTVSYLK, TTVSYLKTQK, NMVTVSYLK	2	3:39159652	TTC21A
FEATEKKIF, FFQKCIYI, TYLFEATEKKI, IFQKCIYI, FEATEKKIFF	2	1:87025657	CLCA4
EHSAGV, EHSAGVVAL, EHSAGV, EHSAGVVA	2	19:17039884	CPAMD8
SLLSLQFQV	2	5:36985083	NIPBL
SPVFLNGNYFI, FLNGNYFI, YFIQGPSGVIL	2	14:61186924	SIX4
VPAQLRLEA	2	8:144996029	PLEC
LSFAYMPPHL, YMPHLRGRLL, AYMPPHLRGRLL, MPPHLRGRLL, FAYMPPHL	2	6:33273072	TAPBP
QPLQRAAAL, ALAPTDRQLPL	2	17:70120194--17:70119909	SOX9
EDMVVALVLAW	2	17:39742887	KRT14
FGMALGTLF, FGMALGTL, TLFVHEHF, FGMALGTLFV, MALGTLFV, RHFGMALGTLF	2	2:233348755	ECEL1
TLALTVLKS, QTLALTVLK, TLALTVLK	2	3:52740182	SPCS1
LRNPNKDVCLL	2	4:39929664	PDSSA
WRMKAPAKKTL	2	10:67680207	CTNNA3
PRHDGRLYPL	2	2:38301663	CYP1B1





<p>           FVIKHSFL 2 1:92769903--1:92772747 RPAP2            RFRFRGRGLVW 2 19:54974318 LENG9            KTHSTSMHM.LSSSKTHSTSM, 2 10:94243045 IDE            SSKTHSTSM.SSSKTHSTSM            ADYQAVNDEI,YQAVNDEI 2 1:223949290 CAPN2            YTVELRGATLL 2 17:43480123 ARHGAP27            SEARYKDVVY 2 2:152548665 NEB            HSIQDVQFM 2 8:113241029 CSM3            VEVSSEAPPA 2 X:99662505 PCDH19            YSSAPRWKACL 2 17:46135788 NFE2L1            SASTRHVTP,ASTRHVTP, 2 3:195506746 MUC4            ASTRHVTP,ASTRHVTP            SRTLTVV, KYVSRRTL, 2 4:141888889 RNF150            KYVSRRTL, YVSRRTL, KYVSRTLV            FLSLVHHTY,LQFLSLVHHTY 2 10:50025369 WDFY4            ASMFQNHVEK,MVFQNHVEK, 2 9:100257990 TDRD7            MVFQNHVEK, SMVFQNHVEK,            SMVFQNHVEK            SRDLAKKLLFL 2 5:98206409 CHD1            RWSRAVLYH, SARRWSRAV, 2 3:19384132 KCNH8            RRWSRAV,ARRWSRAV, ARRWSRAV, SARRWSRAV            YANLPEYF, YANLPEYFKRL 2 11:126126690 FAM118B            TVFGTLASLY, TVFGTLASL, 2 1:230846185 AGT            TVFGTLASLY, SPTTVFGTL            RIDNNSTASYL 2 2:165551820 COBL1            SYHRLPLW, SYHRLPLWAA 2 2:43452464--2:43452439 ZFP36L2            HEIHTGERPY 2 22:24086597 ZNF70            IPPTSRGSSL,PPTSRGSSL 2 17:16285785 UBB            RTVHAFAM,RTVHAFAM, 2 7:150733024 ABCB8            HAFAMEQR,RTVHAFAMEQR, TVHAFAMEQR            SPTEPSTEAL 2 6:32017322 TNXB            YTIKFEV 2 11:114183101 NNMT            ITVPRCKVMAY 2 8:104312432 FZD6            AAVPPTAGAL 2 11:64981481 SLC22A20            MQLQAIQI, IEMQLQAIQI, 2 2:55756108 CCDC104            IEMQLQAIQI, MQLQAIQI            FVICWLPFL 2 3:88040823 HTR1F            YKQDRDITL, YKQDRDITLL, 2 3:136287655 STAG1            TLDLINFPI         </p>	<p>           MMGCIDLVEV, NMMGCIDL, 2 1:15901300 AGMAT            NMMGCIDLVEV            CSSHFPYL,FPYIQYQFW, 2 3:46414947 CCR5            FPYIQYQF            DRVPHLSY,SEVQDRVPH, 2 2:43452464 ZFP36L2            SEVQDRVPHL            VAPPTPPPL, QVAPPTPPPL, 2 2:204305619 RAPH1            VAPPTPPPL, QVAPPTPPPL            QLLGADSWK, RVQLLGADSWK, 2 18:3452223 TGF1            LLGADSWK            AEAADVTA, AEAADVTA, 2 7:100285170 GIGYF1            AEAADVTA            EAAAAAGVLY 2 18:48723146 MEX3C            GLQGSWWA 2 2:11:77920855 USP35            SRLGGPGRIL 2 6:39272281 KCNK17            YVIEWGLGPPA 2 1:36935323 CSF3R            TLNFSVATF, STLNFSVATF, 2 10:94243045 IDE            FSVATFML, FSVATFMLL, STLNFSVATFM, TLNFSVATFM,            FSVATFML, VSTLNFSVATF            LREMVSNM 2 13:46288145 SPERT            AESLLFLTL, AESLLFL, 2 3:148863159 HPS3            AESLLFLTL, AESLLFLTL            SELQPKSKSL, SLMQTRICL 2 13:31735655--13:31732974 HSPH1            SELVEALSLL, VEALSLLIF, EALSLLIF, VEALSLLI, 2 11:57268319 SLC43A1            VEALSLLIF            YPIPVMTV, YPIPVMTV 2 4:5016903 CYTL1            HPGLRPHLHL, RPHLHL, 2 8:145625525 CPSF1            HPGLRPHL, HPGCADHPGL            GLRGLHAL 2 2:43452491--2:43452464 ZFP36L2            LLASWCVPK, LASWCVPK 2 16:50745399 NOD2            NVHFASVVNY, VVNYFIEKENY 2 13:48615145 NUDT15            KMIGGNLKI 2 2:238976762 SCLY            AQNYVEL 2 3:89259138 EPHA3            NNSQVPL 2 1:155308000 ASH1L            ILFPLRL, ILFPLRL 2 6:116836954 FAM26E            RETEPCML, RETEPCML 2 1:156814053 INSR            RMQLCTQLAR 2 17:56435161--17:56435252 RNF43            WRAGGVAV, WAGVAV, 2 14:20852646 TEP1            WAGVAV, WAGVAV            MVPNMRMAK 2 4:119951693 SYNPO2            GMLQIYLL, MSGTGMLQIY 2 18:25565698 CDH2            HPWTGVGSW 2 1:161068553 KLHDC9         </p>
<p>           GLLTASGSAAA 2 15:59981515 BNIP2            FMDQNYAL, FMDQNYALL, 2 2:116548905 DPP10            FMDQNYALL            FRSRPIRRI 2 21:34927647 SON            MLSALARPVSA, VSAALRRSF, 2 7:75677504 MDH2            ALARPVSA            SLQPLGNV 2 11:66055105 YIF1A            RQIYPPSTCSL 2 2:71191573 ATP6V1B1            SSLPLRHTSL, LPLRHTSL, 2 12:25232370 LRMP            LPLRHTSL            TVASSHRF, TVASSHRFCF 2 7:91732038 AKAP9            REMRAGGCC, REMRAGGC 2 10:46999601 GPRIN2            QQAVCFRAW 2 9:117071681 COL27A1            VPRRQQA, RRQCCASARSF, 2 9:98211549 PTCH1            VPRRQQA            KQDKCFSTF, KLKQDKCFSTF 2 13:38154705 POSTN            GREQRPEV 2 10:46998995 GPRIN2            AEAKATAETV 2 9:124855330 TLL11            YRFDLLWGV 2 22:50988099 KLHDC7B            SELPPGRAW 2 12:110019240 MVK            FQIRGAAPPYI, AAPPYIYAV, 2 20:47271846 PREX1            GAAPPYIYAV            SRPQLRRWL, SRPQLRRWLL, 2 1:85040070 CTBS            SRPQLRRWLL            KLDENNTPM 2 5:151051214 SPARC            FLYKYSIGPL 2 1:79392756 ELTD1            CQYLHEAY 2 13:32813960 FRY            YANDAFPEEYM 2 14:63671738 RHOJ            SRCDRVHIF 2 19:38958286 RYR1            RSSPRRPL 2 1:36643581--1:36643530 MAP7D1            VPYSLWI, YSLWIEAMV, 2 4:153881906 FHDC1            YSLWIEAM            KLPLLLFKV 2 8:145745194 LRRCL4            RRSGLWGLRL, CRRSGLWGLRL, 2 16:50745399 NOD2            RRSGLWGLRLH            YIFLHYGTQL 2 9:114695180 UGCG            SSMPSFQAF, LRADASSM 2 7:47344502 TNS3            SELKMTVSTGL 2 1:100889837 CDC14A            ATHQWPGSCPR 2 16:50745399 NOD2            KLHSLHPTSV 2 14:55817461 FBXO34            QRFPILT, RPLCQRFPTL 2 16:14346300 MKL2         </p>	<p>           RMMMTMPIAM, 2 X:39913253 BCOR            MMTMPIAMCL, IAMCLNLF, MMTMPIAM, RMMMTMPI, TRMMMTMPIAM,            MMTMPIAM, TRMMMTMPI, MTMPIAMCL, KTRMMMTM, MTMPIAMCLNL            SQSFFGLF 2 19:48018113 NAPA            TYKPKQDVVHIL 2 7:122341990 RNF148            AQWVSVATL 2 9:137693829--9:137677855 COL5A1            LEHDGHAVSI 2 2:145162528 ZEB2            QNDYFIRQQY, IQNDYFIRQQY 2 13:60565310 DIAPH3            AVLIFLPGYDK, VLIFLPGYDK, 2 5:112889319 YTHDC2            LIFLPGYDK            VSFEASMLL, VSFEASMLL 2 20:37464776 PPP1R16B            LLSRLPAI, GRSRTLLSRL, SRTLLSRL, GRSRTLL, 2 1:156715104 HDGF            TLLSRLPAI            FQRGLPWRL, LPWRRLDAL 2 15:101427829 ALDH1A3            SQSRSPVVK, RSSQSRSPVVK, 2 18:34205516 FHOD3            SQSRSPVVK, SQSRSPVVK, SQSRSPVVK, QSRSPVVK            RLAAGWRIPL 2 15:84639305 ADAMTSL3            LPLVPRPL 2 15:93588289 RGM            VPACVWTCL 2 12:57921401 MBD6            IYSIPPA, AFRDRNTRIL 2 11:58962827 DTX4            RPPGWNRM, NRMGEPRGF 2 1:36935323 CSF3R            GTNVVFTTK, SSGTNVVFTTK 2 5:38510602 LIFR            ESALQNMK 2 20:36940320 BPI            KTPPTNAL 2 5:137803132 EGR1            CSMQDPLLSL 2 3:168833257 MECOM            LRDGCMLIK, LRDGCMLI, 2 14:65271701 SPTB            LRDGCMLIKLL            DPSGGDHF 2 18:48591919 SMAD4            RRTMRPLPGRI 2 18:658064 C18orf56            RELALFLTPD, RELALFLTPDP 2 20:49411698 BCAS4            DEAVSTEVCLM, TEVCLMITDAA 2 5:71482444 MAP1B            FTDDPTFEF 2 8:121290381 COL14A1            WSHHTLPI, HVWSHHTLPI, 2 19:990281 WDR18            APRVWSHHTL         </p>

IQYALDQGMNV, ALDQGMNV, GMNVTQVVF, IQYALDQGM, ALDQGMNVTQV	2	19:12918306	RNASEH2A	IKWVWVPM, LRIYKWPVPM	2	12:122468668	BCL7A
				GOISTLVL, FVGQISTLV	2	4:15067858	CPEB2
				ILWNVSSL, ILWNVSSL	2	5:112170822	APC
QESSFIWPSFM, FIWPSFMVMTM, QESSFIWPSF, SFMVMTML, FIWPSFMVM, FMVMTMLRNL, FIWPSFMV	2	7:21942715	CDCA7L	WMAKPVKSSL, TYAWMAPKV, GTAWMAPKV	2	1:233482322	KIAA1804
ITFEGCQPPTV	2	11:76256898	C11orf30	WRWWTWGG	2	3:196674360	PIGZ
WAFTDFTL, WAFTDFTLNL, LQWAFTDFT, FTDFTLNLTL	2	11:76751166	B3GNT6	QMNDARHGGW	2	3:178952085	PIK3CA
LAAGLKSSIM	2	6:36452576	KCTD20	QETAKFFL, QETAKFFLSL	2	19:6183180	ACSBG2
SASQFQSDKY	2	13:23904858	SACS	CRPWLEQL, CRPWLEQM	2	X:56591874	UBQLN2
MTSSRCWTHCL	2	15:75942664--15:75942736	SNX33	HTAPSLGL, SPWGSHTAPSL, SHTAPSLGL, WGSHTAPSL	2	19:17039884	CPAMD8
AESNLFLA	2	4:151829982	LRBA	STISQNHPTV	2	8:145150876	CYC1
TFSSVPLVASI	2	1:22191454	IRF5	LLWQLSIL, LSFCEFTI,	2	17:19729452	ULK2
VSLTSLFL	2	5:72199545	TNPO1	CLWKLLWQL, CLWKLLWQLSI	2		
CSRPLCSRPL	2	7:128587374--7:128587381	IRF5	SPWVRRRRL, WVRPRRRL,	2	22:38477342	SLC16A8
ATYPKFLANAL	2	1:112303389	DDX20	SPWVRRRRL	2	8:146067469	ZNF7
VPPPHLCLPL, MPPQVPPPHL, VPPPHLCL	2	1:204438071	PIK3C2B	QOSSSLHHQI	2		
KQICIPRSL	2	3:170013719	PRKCI	RTATWVRNLT, ATWVRNLT, RRRTATWVRNL,	2	9:95738900	FGD3
LYVENQFCEF, YVENQFCEF	2	3:195798938	TRFC	RRRTATWVRNL, LRTPPRRLTRM, LRTPPRRL	2		
HRALQLLHEV, HRALQLLHEVL, HEVLHTMPI, HEVLHTMPIA	2	18:48604787	SMAD4	EASQNLSTPPL	2	1:233397867	PCNXL2
YTYQDPRGI, YTYQDPRGI	2	19:36317520	NPHS1	NEVKDLLRCL	2	7:92760715	SAMD9L
MAASVWLLTSV, MAASVWLL	2	3:52543930	STAB1	ISYLYTQKF, TYQKFLCRNM, ISYLYTQKF, FAISIYLY,	2	12:9885707	CLECL1
YIDPSPDYCM	2	3:55504335	WNT5A	KFAISIYLY	2		
FSHHPSGSK	2	18:34205516	FHOD3	QVDQLWDVLL	2	1:15850613	CASP9
WFDQHQIHL	2	7:9084495	ZNF789	RRAEQRRHL, RRHLQRDL	2	17:70119807--17:70119780	SOX9
LLDDSIYI, LLDDSIYI	2	3:113138965	WDR52	RARARAPAA, RARARAPA	2	16:88599701	ZFPM1
GPAATSSL, WAGPAATSSL	2	19:17836781	MAP1S	APGLWMGLAL	2	11:6411935	SMPD1
YLDDRNIFR, EYLDDRNIFR, YLDDRNIF	2	17:7578217	TP53	APPLHRAA	2	18:3452223	TGIF1
SRHTKFGYGV, SRHTKFGY, SRHTKFGYGV	2	6:121562685	C6orf170	RVSPRPLSPL	2	13:111368164	ING1
ILSTKASNTI	2	6:116836954	FAM2E	FFFFFYFLWI, FFYFLWILWL, FFFFFFSF, YWFFFLFF, TYWFFFLF, FYFLWILWL, FFFFFYFL, YFLWILWL, FFFFFFFY, YWFFFLFFSF, FYFLWILWI	2	6:153019117	MYCT1
RTVASSPM, RTVASSPMEPL, AAPRTVASSPM, KMWCAPAPRTV, VASSPMEPL	2	1:53974841	GLIS1	SQNNLYRYV	2	19:12433451	ZNF563
TMIQDTQWV, ILMIQDTQWV, KSTQNGILTM, MIQDTQWV, STQNGILTM	2	5:138643806	MATR3	QRVTVIRGM	2	1:156715104	HDFG
				TVALTIHR, GTVALTIHR	2	2:40656129	SLC8A1
				ILTHIECL	2	5:57753012	PLK2
RDAVASAW	2	1:228504670	OBSCN	STPATLTLAV, STPATLTL	2	19:10202224	C19orf66
VRVPSVTL, VRVPSVTLV	2	18:44400988	PIAS2	FLYTDLFLSL	2	14:88792776	KCNK10
ARWESWPV	2	19:17039884	CPAMD8	CANSWSTWLSL, CANSWSTWLSL	2	19:17836781	MAP1S
SSMFLRFYL, RFLYDASVQRK, LRFYLDASV, SMFLRFYL	2	10:98133400	TLL2	NSWSTWLSL	2		
HEQVYIQS, HEQVYIYST	2	3:132051046	ACPP	CLHGASCLDGV	2	9:126128253	CRB2
YTLRVQAL, AQYTLRVQAL	2	18:59166573	CDH20	IAFTTATKM	2	13:37569724	ALG5
GIQSHSLK, CLNGIQSHSLK	2	1:235969998	LYST	KEITVRGGMFV, KEITVRGGMF, KEITVRGGM	2	22:38895455	DDX17
LLWPGTALIL, LLWPGTALI, LLWPGTALIL, LLWPGTALI, GLLWPGTALI	2	8:144945516	EPPK1	YRPWGTGT	2	8:67341501	RRS1
LHQNRFTF	2	12:51497497	TFPC2	LSNPLCASPSY	2	7:150034378	LRRCE61
PPVNRGFRAL	2	9:137688741--9:137677855	COL5A1	YLDRCFARNRV, FARNRVCI, FARNRVCI, FARNRVCI, FARNRVCI, FARNRVCI	2	3:194353875	TMEM44
HPVLTFRAG, TFRAGSRTT, SPTCLGHVPL, TFRAGSRTTC, HPVLTFRAG, TFRAGSRT	2	19:10202224	C19orf66	LLANDPTYL, TLLANDPTYL	2	1:1184573	MTOR
SNYKFLFL, KLFLFLAYSL	2	8:17063200	ZDHHC2	EEWALLDLAQI	2	19:9413107	ZNF699
FQFYLTGVTQM	2	17:56693650	TEX14	LQPPALSSVF	2	17:7906519	GUCY2D
YLTGVTQMAYL, YLTGVTQM, FYLTGVTQMAY, FQFYLTGV	2			EFYKLRFLCF, CFTFCDFV, RFLCFTFCDFV, CFTFCDFVWLL, CFTFCDFVW	2	11:111742146	ALG9
AAAVVTAAF, AAVVTAFTK, AAVTAFTK, AAVVTAAF, AAAVVTAFTK	2	7:100285170	GIGYF1	RPNQQQQT	2	19:58879976	ZNF837
VTAFTKEASK, AFTKEASK, AAFTKEASK, VTAFTK	2	12:96077487	NTN4	RPHSCLADVL, RPHSCLADV, RPHSCLAD, MFRPHSCL, RPHSCLADVLL	2	5:112175350--5:112175351	APC
KLCSCHPV, RPFAPDACKL	2	2:84864358	DNAH6	ERVGRHVL, ERVGRHVLL, ERVGRHVLLI	2	22:24225987	SLC2A11
FMFEGWEIKLV, FMFEGWEIKL, FMFEGWEI	2	3:48612871	COL7A1	WQNSIWHNL, WQNSIWHNLSL	2	7:4796634	FOXX1
LESLVFPG	2	9:139752899	MAMDC4	TMPPSRSKTL	2	5:112175605	APC
LAGPGLGGY, HLAGPGLGGY	2	17:36936775	PIP4K2B	SPRRGSSPACS, SPRRGSSP, SPRRGSSPAC	2	1:17265560	CROCC
FMKITMAKQLL, ITMAKQLLKI	2	8:113241029	CSMD3	MALCQNAREM	2	3:145796919	PLOD2
LVAARTLPV, TLVAARTLPV	2	12:132394804	ULK1	GSYGCRLLGF, KTYQGSYGCRLL, KTYQGSYGCR	2	17:7579361	TP53
LEASINPAM, SRSLSLPL, LEASINPAMV, LRSRSLSLPL	2	17:43482356	ARHGAP27	CASVAIGKAL	2	1:150530506	ADAMTSL4
RVCACPGRDWR	2	17:7577094	TP53	FEEGMWLQY, FEEGMWLQY	2	7:147914416	CNTNAP2
HRRCHKFVTF	2	19:54387447	PRKCG	FLITLITL, FLITLITLGT	2	17:34313637	CCLL4
SAAWRSCIAL, IALWCASSV, AAWRSCIAL	2	1:27106804	ARID1A	HLSYHRLPL	2	2:43452491--2:43452464	ZFP36L2
RFLHVFFF, RFLHVFFF, RLKRLHVFFF, RFLHVFFF, VFFLHFL, KRFLHVFFF	2	2:230661315	TRIP12	EPKGVDPGAL	2	12:52215102	FIGL2
YNPYGPQTL, LYNPYGPQTL	2	3:37150132	LRRFIP2	REDSRRHGRNW	2	19:47768128	CDC9
EELDALKKPL	2	9:106885501	SMC2	VPACSHVI	2	4:1388944	CRIPAK
				LRKVPQAQRL, RRVKVPQAQRL	2	8:144996029	PLEC
				EEFRDQGV	2	11:380921	B4GALNT4
				STRFLTVPV	2	7:139167934	KLRG2
				SVRSFMDLK, FMDLKIKL, CSVRSFMDLK, KMISETCSV, MISETCSV, SVRSFMDLKIK	2	5:72199545	TNPO1









SSTPCTVL, LTAPGVCWPL, LTAPGVCWPL	2	19:42861055--19:42861727	MEGF8	HCMDILFTF, RLHCMDILFTF, CMDILFTF	2	3:38888499	SCN11A
SQAPCLGTW, CLGTWAWV, SQAPCLGTWAW, RMSTVVSQAPCL	2	1:110168968--1:110169810	AMPD2	SRKKMVHRVV, HRVVCILV, HRVVCILVWLL, HRVVCILVWLL	2	2:237489590	CXCR7
CFSDNALPY, RVCFSDNALPY	2	15:40259920	EIF2AK4	TFTPSASPL, FTSPASPL	2	3:52550119--3:52551362	STAB1
SSWSGCVVQM	2	17:7402719	POLR2A	ITMAKQLL	2	8:113241029	CSMD3
VPIPNRPV	2	16:88494491--16:88494506	ZNF469	FLTPDPGA	2	20:49411698	BCAS4
GRSYDYTPPI	2	11:31812317	PAX6	CPASRLAVPA, CPASRLAV	2	17:36830727	C17orf96
KSHHRVVFH	2	18:3420516	FHOD3	FRDRNTRI, FRDRNTRIL, AFRDRNTRIL	2	11:58962827	DTX4
QPLSLAI	2	1:155041387	EFNA4	SRSQPSSL, LRPHPPL	2	19:4816465	TICAM1
APSALGAL, AAHRAAPSAL, AHRAAPSAL, APSALGALT	2	6:18122506	NHLRC1	VTMSTCLY, YLDPPTCRAIV, VTMSTCLYL	2	10:81072446	ZMZ1
ALLSEGLDEL, DELPAACL, GLDELPA, GLDELPAACL	2	20:37555116	FAM83D	RRETPTATM, RETPTATM, ARRETPTATM	2	1:16462199	EPHA2
FLIHWQNTM	2	11:104878041	CASP5	TLSPVSAF, FAHQGAQEPPV	2	1:3410404	MEGF6
VENLYPNDII	2	14:103593950	TNFAIP2	TRFGKKNITI	2	5:56219767	MIER3
GEKNQLTRDW	2	2:231931680	PSMD1	RRAPPACHWL	2	17:56448298	RNF43
LPAEKEVTELY, LPAEKEVTEL	2	3:132338375	ACAD11	ALGALCHHTF	2	6:18122506	NHLRC1
LPRCGCSASS, LPRCGCSAS	2	16:2059622	ZNF598	RRGGHLPV, CRRGGHLPV	2	12:6657973	IFFO1
IHIPRSLV	2	3:170013720	PRKCI	MQHQRWRGSKW	2	2:189454468	GULP1
ERALFRSL, ERALFRSLNL	2	4:87671632	PTPN13	LQTERSMP, LQTERSMPGAM	2	19:38028415	ZNF793
IYILPRYVR, YLIPRYVRDL, FIYILPRYV	2	21:10916378	TPTE	SENPFKDKKI	2	1:68171151	NGG12
RWKPLQTVRLM	2	6:151673000	AKAP12	QTINNIVFF	2	8:68116980	ARFGEF1
VRNSFEVRV	2	17:7577141	TP53	EAMFLWRAAV	2	19:36122298	RBM42
KSYNFNTF	2	9:99581565	ZNF782	TAAARRWWLFV	2	11:837543--11:837536	CD151
SSCLQIHR	2	19:44778797--19:44778796	ZNF233	TAAARRWWLFV	2	11:837543--11:837536	CD151
EQALPLWTV	2	1:108700183	SLC25A24	SRLPRIKSQTI	2	1:156561651	APOA1BP
LEVEEVSMD	2	11:115099985	CADM1	LEGNQIEI, IEIHDQLFAV, NQIEIHDQL, LEGNQIEI	2	5:13928280	DNAH5
FGEEPPAPPV	2	X:128926360	SASH3	YQNPVQSNFS	2	13:61103095	TDSD3
WSHHRML	2	19:16038110	CYP4F11	LSAAAVPV	2	20:21493012	NKX2-2
ALFPKGSQSV, ALFPKGSQSV	2	4:48597671	FRYL	LARAIGYAA	2	10:1094906	IDII
LPAFDAIDM	2	4:8603117	CPZ	HAFAGLKIY	2	3:3886823	LRRN1
AMILWTLVSL	2	1:46120890	GPBP1L1	LSSLCVLLHF, LSSLCVLL, FILPEFHI	2	3:151046142	P2RY13
LISTNPNFPF	2	17:10258071	MYH13	ILLSRYSL, SRYSLVFFL, LLSRYSLVFFL	2	10:101544462	ABCC2
LRPRSVVI, SFASLRPRSV	2	16:28847356--16:28847350	ATXN2L	AVRTSMLTL, AVRTSMLTLL	2	1:204228411	PLEKHA6
RRSRLELELQI, SRLELELQI	2	11:830670	EFCAB4A	ASPPRRPLK	2	7:150698398	NOS3
VQLLGADSW	2	18:3452223	TGIF1	TRKFTWAL, SAETRFKFTWAL	2	13:99738554	DOCK9
ISKFCCTGK	2	2:163130424	IFIH1	LPWHIQIGL, APLWHIQI, APLWHIQIGI	2	12:66622063	IRAK3
KFLNSTNSWS, KFLNSTNSW	2	2:27248517	MAPRE3	RPRVAAA	2	2:43452491--2:43452464	ZFP36L2
RTDVMNVV	2	19:52888438	ZNF880	LRSPADPTDL	2	8:22428658	SORBS3
SEGNTPLTCM	2	7:100681721	MUC17				
DPSLCMFFEPL, DPSLCMFF	2	2:46987060	SOCS5				
IMANMYQWI, IMANMYQWIRV	2	14:96761299	ATG2B	APSVRGDAV	2	20:62321691	RTEL1
IRGSTLCF, IRGSTLCFL	2	11:14515315	COPB1	CNIRFSRHETY, RHETYTVHKRY	2	16:88599701	ZFPM1
MPAPKSCCTGF, FAFTSPIGL, APKSCCTGF	2	19:17955112--19:17954643	JAK3	RMMRRQWSLWV, RQWSLWV	2	6:116836954	FAM26E
ALLGASAPCGA	2	1:150530506	ADAMTSL4	HPKVHLNTMF, MFRRPHSCL	2	5:112175351--5:112175350	APC
LENIQSIF	2	X:138697171	MCF2	ASSVLPCHSLL	2	2:73302665--2:73302655	RAB11FIP5
KRFEGINDF, KRFEGINI	2	17:11597209	DNAH9	VVMDRICSFPL, VVMDRICSF, VMDRICSFPL, VMDRICSF	2	6:90397868	MDN1
HWKSQTLQF	2	4:81967605	BMP3	LFPPSTTTKLL, FSNCSGLF, SGLFPSTTTK, GLFPSTTTK, GLFPSTTTK, CSGLFPSTTTK	2	8:100520130	VPS13B
LVSKARPAL, RPALQAPP, RPALQAPP, RLVSKARPAL, RPALQAPP	2	9:137688741--9:137677855	COL5A1	TVFGGFLKYTV	2	18:7036080	LAMA1
KNLKWLLQL	2	22:21988833	CCDC116	SRCSPTTSL, LRSRSL, LRSRSLSLPL	2	17:43482356	ARHGAP27
QPLSATPSRVL	2	1:228559450	OBSCN	SLTCSWL	2	11:66055105	YIF1A
HRKELCSSV	2	2:100210199	AFB3	RPSTRFLTVP, RPSTRFLT, SPRPSTRFLT	2	7:139167934	KLRG2
IPRRHTRST	2	12:4479724	FGF23	RLFHPWTTDM	2	2:171572940	SP5
KRSAWRKTTWL	2	16:57113024	NLRC5	WTVAPTAL, HQVPCWCPW	2	17:416107000	ETV4
RQHRSALMTF	2	16:50745399	NOD2	RPLPARDKHAL, LPARDKHAL	2	6:70423652	LMBRD1
AAAPTQQL, RAAAPTQQL	2	1:228559450	OBSCN	MPPSPMASL, MASLWSTV	2	19:17836781	MAP1S
LESWRRTW	2	10:102762593	LZTS2	HEIHTGGKPY, YASHIVQHEI, YASHIVQHEI	2	19:38230678	ZNF573
TRPEPPPAPV, TRPEPPPAPVL	2	3:52550119	STAB1	YILGSVDK	2	12:124317763	DNAH10
YLRFGVQL, ILYLRFVQVQL	2	6:159049469	TMEM181	SERDYNMDF, RESERDYNM, RDYNMDF, RDYNMDF, RDYNMDF, RESERDYNMDF	2	1:100889837	CDC14A
AEAPADCGPAQ	2	8:145747920	LRRC24	HLVVSQSIYH, KLHLVSQSIY, KLHLVSQSIYH	2	3:193332592	OPA1
DRIGYFPAL	2	17:73501069	CASKIN2	FTSLSSASLPR, TSLSSASLPR, LSSASLPR	2	16:50745399	NOD2
QLLNQIQR	2	6:109294665	ARMC2	RSRRNVGLY	2	14:59113430	DACT1
FVIVFAYV, FVIVFAY	2	2:167162315	SCN9A	SYHYVFFL, YVFFLNTY	2	1:63021531	DOCK7
SSAARAGM	2	7:100285170	GIGYF1	RATEVPSLTAL, FLAGDGRATEV	2	2:1481231	TPO
FASVVNYFI	2	13:48615145	NUDT15	MRGPPPLMPL	2	1:149895562	SFB4
IQLMTRNFW, SAKNSNIQLM, QLMTRNFWPM, MTRNFWPM, LMTTRNFWPM	2	8:92352747	SLC26A7	QRHWSSKINL, QRHWSSKI	2	6:158850873	TULP4
SLLERVLFYR, MSLLERVLFYR, RVLFYRAR	2	3:3067806	CNTN4	RRVQRLTL, CRRVQRLTL	2	11:64597506	CDC42BPB
LLTSKLFYSK, TSKLFYSK, LTSKLFYSK	2	7:34989478	DPY19L1	MMLPVRARTAR, RSALPQGRAPL, MMLPVRAR	2	18:34205516	FHOD3
TRWLPQAAL	2	1:27088681--1:27088668	ARID1A	KDVWNFKAW, FESLCSKDVW	2	17:38711971	CCR7
RTAAWQLCCR	2	16:50745399	NOD2	FQMMEGKAF, QMMEGKAF	2	11:124845049	CCDC15
RVLNPCLPSIM	2	22:38895455	DDX17	RWKPLQTVL, RWKPLQTV	2	6:151673000	AKAP12
SRASGTARTWL, RASGTARTWL	2	17:80049354	FASN				
AMMCASSTSW, AMMCASSTSWR, MMCASSTSWR	2	8:22054260--8:22054259	BMP1				
HRSHLQHQRI	2	19:57840047	ZNF543				

FTMARASVNEW, TARPLSLTSLF,FTMARASV ATQASMTL	2	1:155221333--1:155221578	FAM189B
AEVLSHDHIAFL, AEVLSHDHIAF, DEAEVLSDDH, VLSHDHIAFL, LSDHIAFL	2	22:20130522--22:20130515	ZDHHC8
GPKSLRPPV, SPSGPKSL, RPPVWAPPT	2	19:39330959--19:39330958	HNRNPL
RKLEAFFAF, FAFSSLLWPS HAWSRRLRGL	2	12:51392999	SLC11A2
SSAARRSNFR, SAARRSNFR, ASSAARRSNFR	2	19:49376582	PPPIR15A
KLFSELEF, NEPWYKLF YQMLQDQDF	2	2:60688969	BCL11A
CRNLWLTSM	2	10:97135757	SORBS1
SLHNRWTWYV, LQSLHNRWTW GETQNTFL, LEEPGETQNTF	2	16:20673143	ACSM1
FRTESPPAQAV, TESPPAQAVM, TESPPAQAV, TESPPAQAVML	2	1:110168968--1:110169810	AMPD2
VLGGKAAIPEV	2	3:57561285	ARF4
SEPLATPRHQY, LATPRHQYY HMDCLRWL	2	20:5903379	CHGB
SRNKSELL	2	10:102762593	LZTS2
HPQWGSQV, HPQWGSQVPR RTLNGSQM	2	1:62672556	LITD1
SVDPPFQVK, LLASVDPPFQV, SVDPPFQV	2	X:47072566	UBA1
YLGRTLLV, YLGRTRLLVTCL, NWNAYLGRTRL	2	12:133250289	POLE
HECSLWGSWL	2	12:58025103	B4GALNT1
AQNLSYLNL	2	20:62326110	RTEL1
RATPLSSL, SRRATPLSSL, RRATPLSSL	2	19:18497024	GDF15
VAMWISSVF, RVAMWISSV, VAMWISSV, RVAMWISSVF, AMWISSVFEA, AMWISSVF	2	14:30068249	PRKD1
YASAVSSL	2	10:890939	LARP4B
ITYSHSPPR	2	19:44150698	PLAUR
FLWTKDGNPF	2	14:104026187	BAG5
STASPCSLTSL, TASPCLTSLR	2	12:124848228	NCOR2
LAAPGGRARL, RARLQGGRQTM	2	6:36452576	KCTD20
ASATSTPSR, STSTPSRQLHR RLPELRQPQRL	2	6:42957352	PPP2R5D
FIHLRISAYM	2	12:20522723	PDE3A
	2	3:369855	CHL1
	2	8:22054260--8:22054259	BMP1
	2	20:21493012	NKX2-2
	2	16:50745399	NOD2
	2	2:43452439--2:43452244	ZFP36L2
	2	6:51889974--6:51890015	PKHD1

HEHAQREVQRL	2	1:17266536	CROCC
FPALACSL, FPALACSL, FPALACSL, FPALACSL	2	2:36825137	FEZ2
APTSCGPTRA	2	8:120220776	MAL2
RPPELQQLL	2	17:70119909--17:70120194	SOX9
GWEPQIQT	2	2:68544315	CNRIP1
YNVLDALRYFV, GLYNVDALR, LYNVLDALRYF, YNVLDALRYF AMTPPVLTAK, TTAKTYSV, LTTAKTYSV, MTPPVLTAK, VLTAKTYSV	2	8:28385376	FZD3
ILLGGSTSSWA	2	3:151163622	IGSF10
RRAHERPPI, RAHERPPI, RAHERPPI, SRRAHERPPI	2	17:16330835	TRPV2
KRIPQIRI	2	15:59376343	RNF111
VEVYVQLV, AQVEVYVQLV, VEVYVQLV	2	13:73347916	DIS3
CLHLPSPPV	2	6:105198346	HACE1
HQTSVLSF, FTTANTVPTAI	2	12:121432115--12:121432118	HNFA1
LRHKRDKYL, RYVYDLRHKRDK	2	9:109689491	ZNF42
CPASCSGCYSW, SLLRFCPA, WTIPPTGSPF, CPASCSGCY	2	8:77617034	ZFH4
YSAPVPPNAL, FYSAPVPPNAL	2	7:100855927	PLOD3
RTSYLENK, TSYLENKLSCK	2	20:33328934	NCOA6
ISVTPPLQPY, ISVTPPL	2	1:247588527	NLRF3
SPADPTDL	2	1:62253580	INADL
CRVSTWQGT, STWQGTAL	2	8:22428658	SORBS3
YPPDNLRYM	2	19:7592444--19:7592423	MCOLN1
IACRVTPM	2	19:50462324	SIGLEC11
FSYLIHEI	2	16:2059622	ZNF598
LECRTRHPNM, CRTRHPNMEL, CRTRHPNM, RTRHPNMEL, TRHPNMEL	2	19:12059564	ZNF70
SLYQYFENF	2	16:10729660	TEKTS
FAFSSLLW, WPSHLDMSML, FSSLLWPSHL, WPSHLDMSM	2	14:78045431	SPTLC2
GRLPALSL, GRHAPGRL, GRLPALSL	2	12:51392999	SLC11A2
YTQSEMEF, YTQSEMEF, YTQSEMEFL	2	17:46629736	HOXB3
EEGCGASGTW, GEEGCGASGTW	2	1:237947200	RYR2
RSFQIHR	2	X:153042691	PLXNB3
AATLRCPAV	2	19:12574841--19:12574925	ZNF709
RRIQSRSPFPL, PFLYSGRLL	2	3:51417604	DOCK3
	2	11:46702223--11:46702224	ARHGAP1

MQNHTAEKPY	2	19:37441368	ZNF568
ATASAAPRPR, ATASAAPR, RAATASAAPR	2	17:70119870--17:70119913	SOX9
SRWMTSLI	2	16:14346300	MKL2
KLWNLMMPM	2	4:141461344	ELMOD2
WRQLWFLLLL, WRQLWFLLL, WFLLLLLLPGA, FLLLLLPGA, WRQLWFL, WFLLLLLL, RQLWFL, WRQLWFLLL	2	1:179051300	TOR3A
KVDPVSLRKV	2	5:176026129--5:176026138	GPRIN1
VEAMPLCLL, WEVEAMPLCL, VEAMPLCL, WEVEAMPLCLL, VEAMPLCLLPA	2	2:120005381	STEAP3
YSVANLAKYL	2	5:140515167	PCDHB5
FKHPHVANPQL	2	13:113854748	PCID2
ILFSTWVF	2	8:142221695	SLC45A4
PLDSSPLQLL	2	3:77657038	ROBO2
FADMERHHILF	2	3:25668727	TOP2B
HRHGLPAEL	2	1:27088681--1:27088668	ARID1A
TPACTASC	2	11:76751542--11:76751604	B3GNT6
VSSSTVSSVM, SSSTVSSVM, SSTVSSVM	2	3:183508631	YEATS2
TAHVTDMDV, VEVETVTQAA, ITAAHVTDMDV	2	X:135956571--X:135956575	RBMX
LYIQNALN	2	12:122018773--12:122018740	KDM2B
CRRPWPPRL, RRPWPPRL, RRPWPPRLTPL	2	12:132394804	ULK1
HERGALPRRAL	2	17:70117710--17:70117715	SOX9
YVPGTNETL	2	16:77353780	ADAMTS18
LPSKPFANSSL	2	22:28389367	TTC28
IQCFILMYF	2	7:33014804	FKBP9
VLISPLMCV, WLVLISPL, WLVLISPLMCV, TALKIWLVL	2	6:30864547--6:30863251	DDR1
RPSRRGPEA, AEAEAAPASPL ATWLSLAL	2	16:88599701	ZFPM1
RQLSSKSLW	2	10:124895627	HMX3
LRLELAKM	2	14:75230947	YLP1M1
TVDCINCLL, TVDCINCLLL	2	1:39332608	MYCBP
VPCSMQDPL	2	3:151046142	P2RY13
RNNSAFLK, RNNSAFLK, IRNNSAFL, NIRNNSAFLK	2	3:168833257	MECOM
RRPGGQLRL, RRGPGGQLRLM, GRRPGGQLRL, LMLPSSARPW, RRPGGQL	2	18:56202169	ALPK2
	2	9:17135271	CNTLN

LARPVSA	2	7:75677504	MDH2
HPHRRHPGCA, HPGGCADHPGL, RPHHPHRRHPG	2	8:145625525	CPSF1
KDNIFGTVI	2	5:38510602	LIFR
SLWIEAMVLK, WIEAMVLK, SLWIEAMVLK, NYSLWIEAM, YSLWIEAMVLK	2	4:153881906	FHDC1
KLRQNY, LRQNYM, GEDIFWTC, GEDIFWTCMLN REAAAAGV	2	2:234078674	INPP5D
TTPPPPLL	2	16:11141159	CLEC16A
FRATPLQGM, FRATPLQGM, QACLTFRGSW	2	18:48723146	MEX3C
DVPTTSSLV	2	1:109792735	CELSR2
LSFWQLTF	2	2:238289624	COL6A3
LMNLATADLL	2	10:64564892	ADO
TRTLCFPRPV, FQMHTRTLCL, CLFPRPVAF, FQMHTRTLCLF	2	19:13882968	MRI1
KSYKMNGREY	2	3:151046142	P2RY13
MRWSSQTCSL, RRMTRPNM	2	19:17000632	F2RL3
SATVAFWRS	2	11:47304002	MADD
ELRALREM	2	2:202514862	MPP4
TMLHGQVMDQK	2	19:5231449	PTPS
QONELKTY	2	19:51015404	ASPDH
TRTFIAARTFV, VTRTFIAAR, TRTFIAARTF	2	13:46288145	SPERT
SQTHLNTL	2	15:42371752	PLA2G4D
MANRNHLK, KMANRNHL	2	X:84526620	ZNF711
RQTSFCTLTW	2	13:94482727	GPC6
QEQQNVLKVL, QEQQNVLKVL	2	15:72143639	MYO9A
REVITVYQLF, REVITVYQL, REVITVYQLF	2	5:33576343	ADAMTS12
FRLFIQNL, FQNLFFQI, FRLFIQNLFF, FRLFIQNLFF, RRTTFRFL, RFLFIQNLFFQI	2	22:50297991	ALG12
HTEMIKKEER	2	18:73000406	TSHZ1
TDGLVREW	2	16:83251091	CDH13
SATEEGNTQVL	2	3:98506942	ST3GAL6
SPSVHNKET, SPSVHNKETA	2	15:52244057	LEO1
FHRIQNQL, NQLQLFRNFFL, FHRIQNQLQL	2	2:1233482260	KIAA1804
SRLLSRTAM	2	9:124855211	TLL11
LTSPAVCL	2	3:195518119	MUC4
CPMTACSL, CPMTACSI	2	6:117622233	ROS1
	2	10:114900984	TCF7L2
	2	6:83819938	DOPEY1
	2	22:20130515--22:20130522	ZDHHC8

YFREAYFWL, TRNILDYF, LDYFREAYFWL	2	3:31666425	STT3B
FFYRHPSY	2	1:205589099	ELK4
ARCPRVGCL	2	16:28847356--16:28847350	ATXN2L
LEKAVQSFYW, LEKAVQSFY	2	6:107361391	C6orf203
FQNWKWITVYL, FQNWKWITV	2	7:103205756	RELN
FFFGFWLV	2	19:56249721	NLRP9
SPASACTMPPL, QPSPASACTM, MPPLHPQW, SPASACTM	2	17:48433967	XYLT2
SQLPASSPTK	2	18:34205516	FHOD3
YQWNITSPEV, QQWNITSPEV	2	7:4056840	SDK1
SPLDSSPL	2	3:77657038	ROBO2
YWKRHIEL, NYWKRHIEL	2	7:73021716	MLXIPL
GLGDGPAQPEI	2	19:55815035	BRSK1
GEWGAFNDIMW	2	14:102463483	DYNC1H1
HSNDGGNILYY	2	1:65332611	JAK1
SQNTRVPRLPK	2	6:32918419	HLA-DMA
YSAAPGAPPL	2	10:102587324	PAX2
TRKSPALSAL	2	3:52550119	STAB1
HPQRKRRGGPP, PPSPLAL, GPPSPPLAL	2	17:56435161	RNF43
LEKNVPLRVKI, FLEKNVPL	2	1:156931470	ARHGFE11
KVWSRTAYL, SSAKVWSRTAY	2	12:64819643	XPOT
YLDPPTCRAI, YLDPPTCRAIV, SYLDPPTCRAI	2	10:81072446	ZMIZ1
REIQTAVHLLL, REIQTAVHLL, REIQTAVHL	2	6:27783120	HIST1H2BM
LLVSSPPSGV, WLLVSSPPSGV	2	1:85040070	CTBS
YSTQYGLKL	2	2:159537101	PKP4
GRPLRPPI	2	8:54792097	RGS20
KRDQCQOM	2	11:124845049	CCDC15
MDFSLVFSPSF	2	4:113540617	C4orf21
WPCLWNSLLRF, SLLRFCPA, WPCLWNSLL, WPCLWNSL	2	7:100855927	PLOD3
WRVEQRKIL, WRVEQRKILL, WRVEQRKI, RIQDFVWR	2	5:14336771	TRIO
YKNFLRCL, YKNFLRCLVI, LRSAAEYKNFL, AYKNFLRCLV, AYKNFLRCL, AYKNFLRCLVI	2	15:75694278	SIN3A
FTRQSTGTIAY, QSTGTIAY LEYFMKQINDA, LEYFMKQI	2	4:187158051--4:187158019 3:178952074	KLKB1 PIK3CA

MEANMSIPSM	2	14:105408302	AHNAK2
LEBSSGNLLV	2	17:7577141	TP53
HQADNLLM, SRHQADNLLM, SRHQADNLL, SRHQADNL	2	22:40356095	GRAP2
SEAPGAQYPP	2	19:12996740	KLF1
HICRRFK	2	18:74154167	ZNF516
SLKEKVNLLQK	2	5:13920716	DNAH5
LPQGRDDL, LPQGRDDLRA	2	8:145625525	CPSF1
SEREREAL	2	17:70117715--17:70117710	SOX9
VYGGNVVMLV	2	17:65119099	HELZ
MLVMHNMFSHR, SYMLVMHNM, VMHNMFSH, MLVMHNMFSH, VMHNMFSHR, LVMHNMFSHR, SYMLVMHNM	2	12:57992945	PIP4K2C
FRTRARKGEKF	2	11:58962827	DTX4
YAVSLAAL, SASYAVSL, SASYAVSLAAL	2	19:47549454	TMEM160
LQSSLNPAASV	2	14:76368544	TTL5
NSFKYLLDQLK	2	12:112479863	NAA25
NQIVIRGLNTI	2	3:41277291	CTNNB1
FTSLSSASL	2	16:50745399	NOD2
QRFNPAFNI, FRGQRFPAM	2	7:44425654	NUDCD3
FVIIVFAYL, FVIIVFAY	2	2:167162315	SCN9A
SARTGRSV, SARTGRSVSA	2	22:20130515--22:20130522	ZDHC8
MRSSELPL	2	18:56887507	GRP
GPRMQLCT, SPPLALGPRM, PPLALGPRMQL, GPRMQLCTQLA	2	17:56435161	RNF43
LLDSLEPL, VENRAEMALL, AEMALLDSLEP, AEMALLDSLE, AEMALLDS, VENRAEMAL, AEMALLDSL	2	3:48612871	COL7A1
TRSCISL	2	1:155308000	ASH1L
STLNFSALLM	2	10:94243045	IDE
IQNYHLRGIGM	2	1:85020800	CTBS
ALHPLWWA, ALHPLWWATA	2	1:206650063	IKBKE
DEDIVTILQA, DEDIVTILQAT, DEDIVTIL	2	20:1445016	NSFL1C

**Table S5:** Accession numbers of the microarray profiles of colorectal cancer

<b>Dataset</b>	<b>Platform</b>	<b>#Sample</b>	<b>Publication (PMID)</b>
<u>TCGA</u>	RNAseqV2	538	<u>22810696</u>
<u>GSE12945</u>	HG-U133A	62	<u>19399471</u>
<u>GSE41258</u>	HG-U133A	187	<u>19359472</u>
<u>GSE14333</u>	HG-U133_Plus_2	290	<u>19996206</u>
<u>GSE17538</u>	HG-U133_Plus_2	240	<u>22115830</u>
<u>GSE29623</u>	HG-U133_Plus_2	130	<u>22362069</u>
<u>GSE33113</u>	HG-U133_Plus_2	90	<u>22496204</u>
<u>GSE39582</u>	HG-U133_Plus_2	566	<u>23700391</u>
<u>GSE24549</u>	HuEx-1_0-st	83	<u>21619627</u>
<u>GSE24550</u>	HuEx-1_0-st	77	<u>22991413</u>
<u>GSE30378</u>	HuEx-1_0-st	95	<u>22991413</u>
<u>GSE28722</u>	Rosetta custom human 23K array	125	<u>21251323</u>

**Table S6:** List of features used for the regression model.

<b>Parameter</b>	<b>Description</b>
HLA-A	Antigen presenting machinery
HLA-B	Antigen presenting machinery
HLA-C	Antigen presenting machinery
HLA-E	Antigen presenting machinery
HLA-G	Antigen presenting machinery
HLA-F	Antigen presenting machinery
Neo-antigen frequency	Antigen presenting machinery
B2M	Antigen presenting machinery
TAP1/2	Antigen presenting machinery
Heterogeneity	Tumor heterogeneity
Treg	Immunosuppressive TILs
MDSC	Immunosuppressive TILs
ATAD2	Cancer germline antigens
CASC5	Cancer germline antigens
CEP55	Cancer germline antigens
CASC5	Cancer germline antigens
CSAG1	Cancer germline antigens
CSAG2	Cancer germline antigens
CTAGE5	Cancer germline antigens
CTCF	Cancer germline antigens
DCAF12	Cancer germline antigens
GPATCH2	Cancer germline antigens
KDM5B	Cancer germline antigens
KIAA0100	Cancer germline antigens
LEMD1	Cancer germline antigens
MAGEA12	Cancer germline antigens
MAGEA2	Cancer germline antigens
MAGEA3	Cancer germline antigens
MAGEA6	Cancer germline antigens
IGF2BP3	Cancer germline antigens
MPP1	Cancer germline antigens
NUF2	Cancer germline antigens
ODF2	Cancer germline antigens
OIP5	Cancer germline antigens
PBK	Cancer germline antigens
PIWIL1	Cancer germline antigens
POTEE	Cancer germline antigens
RQCD1	Cancer germline antigens
SPA17	Cancer germline antigens
SPAG1	Cancer germline antigens
SPAG4	Cancer germline antigens
SPAG9	Cancer germline antigens
TTK	Cancer germline antigens
ZNF165	Cancer germline antigens
SEMG1	Cancer germline antigens
IDO	co-inhibitor
PDL1	ligand

B7H2	ligand
CD28	co-stimulator
ICOS	co-stimulator
LAG3	co-inhibitor
BTLA	co-inhibitor
CD160	co-inhibitor
B7DC	ligand
HVEM	ligand
CD137L	ligand
OX40	co-stimulator
OX40L	ligand
CD70	co-stimulator
GITRL	ligand
GITR	co-stimulator
BAFF	ligand
BAFFR	co-stimulator
APRIL	ligand
CD40L	co-stimulator
CD40	ligand
TACI	co-stimulator
AIMP1	Cytokine
BMP10	Cytokine
BMP13	Cytokine
BMP2	Cytokine
BMP4	Cytokine
BMP5	Cytokine
BMP6	Cytokine
BMP7	Cytokine
CSF2	Cytokine
CSF3	Cytokine
CTF1	Cytokine
EDA2R	Cytokine
IFNA1	Cytokine
IFNA13	Cytokine
IFNA14	Cytokine
IFNA16	Cytokine
IFNA17	Cytokine
IFNA2	Cytokine
IFNA21	Cytokine
IFNA4	Cytokine
IFNA5	Cytokine
IFNA6	Cytokine
IFNA7	Cytokine
IFNA8	Cytokine
IFNAR1	Cytokine
IFNAR2	Cytokine
IFNG	Cytokine
IFNGR1	Cytokine
IFNGR2	Cytokine
IFNK	Cytokine

IL10	Cytokine
IL10RB	Cytokine
IL11	Cytokine
IL12B	Cytokine
IL12RB1	Cytokine
IL12RB2	Cytokine
IL13	Cytokine
IL15RA	Cytokine
IL16	Cytokine
IL17B	Cytokine
IL17RA	Cytokine
IL17RB	Cytokine
IL18	Cytokine
IL19	Cytokine
IL1A	Cytokine
IL1B	Cytokine
IL1R1	Cytokine
IL2	Cytokine
IL20	Cytokine
IL21	Cytokine
IL21R	Cytokine
IL22	Cytokine
IL23	Cytokine
IL23R	Cytokine
IL24	Cytokine
IL25	Cytokine
IL27	Cytokine
IL28RA	Cytokine
IL29	Cytokine
IL2RA	Cytokine
IL3	Cytokine
IL31RA	Cytokine
IL32	Cytokine
IL33	Cytokine
IL36RN	Cytokine
IL4	Cytokine
IL4R	Cytokine
IL5	Cytokine
IL6	Cytokine
IL7	Cytokine
IL8	Cytokine
IL9	Cytokine
PF4	Cytokine
TGFA	Cytokine
TGFB1	Cytokine
TGFB2	Cytokine
TGFB3	Cytokine
TGFBR1	Cytokine
TGFBR2	Cytokine
TGFBR3	Cytokine

TNF	Cytokine
TNFRSF10A	Cytokine
TNFRSF10B	Cytokine
TNFRSF10C	Cytokine
TNFRSF10D	Cytokine
TNFRSF11B	Cytokine
TNFRSF12A	Cytokine
TNFRSF13B	Cytokine
TNFRSF19	Cytokine
TNFRSF1B	Cytokine
TNFRSF21	Cytokine
TNFRSF25	Cytokine
TNFRSF3	Cytokine
TNFRSF4	Cytokine
TNFRSF6	Cytokine
TNFSF10	Cytokine
TNFSF11	Cytokine
TNFSF12	Cytokine
TSLP	Cytokine
CCL11	Chemokine
CCL15	Chemokine
CCL16	Chemokine
CCL17	Chemokine
CCL18	Chemokine
CCL2	Chemokine
CCL20	Chemokine
CCL22	Chemokine
CCL23	Chemokine
CCL25	Chemokine
CCL27	Chemokine
CCL28	Chemokine
CCL3	Chemokine
CCL4L2	Chemokine
CCL5	Chemokine
CCL7	Chemokine
CCL8	Chemokine
CCR1	Chemokine
CCR10	Chemokine
CCR3	Chemokine
CCR4	Chemokine
CCR6	Chemokine
CCR8	Chemokine
CCR9	Chemokine
CCRL1	Chemokine
CCRL2	Chemokine
CKLF	Chemokine
CX3CL1	Chemokine
CX3CR1	Chemokine
CXCL1	Chemokine
CXCL10	Chemokine



CXCL11	Chemokine
CXCL12	Chemokine
CXCL13	Chemokine
CXCL14	Chemokine
CXCL16	Chemokine
CXCL17	Chemokine
CXCL2	Chemokine
CXCL3	Chemokine
CXCL5	Chemokine
CXCL6	Chemokine
CXCL9	Chemokine
CXCR1	Chemokine
CXCR2	Chemokine
CXCR2P1	Chemokine
CXCR3	Chemokine
CXCR4	Chemokine
CXCR5	Chemokine
CXCR6	Chemokine
CXCR7	Chemokine
DARC	Chemokine
XCL1	Chemokine
XCL2	Chemokine
XCR1	Chemokine
CXCL7	Chemokine

---