Mouse Small Libraries

Library number	RMK001	RMK002	RMK003	RMK004	RMK005	RMK006	RMK007	RMK008	RMK009	RMK010	RMK011	RMK012	RMK013	RMK014	RMK015	RMK016	RMK017	RMK018	RMK019	RMK020	RMK021
Library name	1_C	LPL	Cancer	SLC	IEI	IEM	IEM_s	KV	PID	PPP	Glycolysis	Glutamate	TCA	Oxphos	DLG-Glutamate	Bcl2	ICM	Fe	Death	Inositol	Mouse Customer #1
Targets	One carbon metabolism	Lipid metabolism	Metabolic genes in cancer	Solute carrier transporters	Inborn errors of immunity	Inborn errors of metabolism	Inborn errors of metabolism_small	General metabolic genes	Primary immunodeficiency disorders	Pentose phosphate pathway	Glycolysis genes	Glutamate metabolism	Tricarboxylic acid cycle	Oxidative phosphorylation	Glutamate metabolism _Small	BCL-2 & mitochondrial fission/fusion	Immune Checkpoint Molecule	Iron metabolism	Cell death	Phosphoinositol Regulation	Transcrition factors
Vector/Marker	Retrovirus/GFP	Retrovirus/BFP	Retrovirus/BFP	Retrovirus/GFP	Retrovirus/BFP	Oligos	Retrovirus/BFP	Retrovirus/BFP and Lentivirus/Puro	Retrovirus/GFP	Retrovirus/GFP	Retrovirus/GFP and Lentivirus/Puro	Retrovirus/GFP & BFP	Retrovirus/GFP	Retrovirus/GFP and Lentivirus/Puro	Retrovirus/BFP	Retrovirus/GFP	Retrovirus/BFP	Retrovirus/BFP	Retrovirus/BFP	Retrovirus/BFP	Lentivirus/Puro
1	Ada	Acox1	Aldoa	Slc10a1	Acp5	Abca1	Mat2a	Aco1	Adam17	Aldoa	Acss1	Bcat1	933405O20R	Atp5a1	Bcat2	BCL-2	Ctla4	Tfrc	Bcl2	Mtm1	ELF1
2	Ahcy	Cpt1a	Aprt	Slc10a2	Actb	Abcb7	Tfrc	Ahr	Aire	Aldoart1	Acss2	Bcat2	Acly	Atp5b	Gfpt1	BCL2L1 (BCL-X)	Cd28	Slc11a1	Bcl2l1	Mtmr1	ELF2
3	Aldh1l1	Cpt1b	Slc7a1	Slc10a3	Ada	Acadl	Atp6ap2	Aldoa	Xiap	Aldob	Adh1	Gad1	Aco1	Atp5c1	Gclc	BCL2L2 (BCL-W)	Cd48	Slc11a2	Bcl2l2	Mtmr10	ELF3
4	Amt	Cpt2	Dhfr	Slc10a4	Adam17	Acadm	Vcp	Atg5	Casp8	Aldoc	Adh4	Gad2	Aco2	Atp5d	Gls	BCL2A1 (ACC-1)	Cd80	Fpn, Slc40a1	Bcl2l10	Mtmr11	ELF4
5	Atic	Dgat1	Dnmt1	Slc10a5	Cfd	Acadvl	Atp6v1a	Cd5l	Fadd	Dera	Adh5	Gfpt1	Cs	Atp5e	Got2	MCL1	Cd86	Scara5	Bnipl	Mtmr12	ELF5
6	Bhmt	Acsl1	Dpm2	Slc10a6	Aicda	Acads	Cog4	Arg1	Il10	Fbp1	Adh7	Gfpt2	Csl	Atp5g1	Ctps	BCL2L13 (BCL-RAMBO)	Cybb	Timd2	Bnip3	Mtmr14	GATA3
7	Bhmt2	Fasn	Gapdh	Slc10a7	Aire	Slc33a1	Nus1	Arg2	Il10ra	Fbp2	Adpgk	Glul	Dlat	Atp5g2	Ctps2	BCL2L10 (Boo/Diva/BCL-B)	Ido1	Heph	Bcl2l11	Mtmr2	CTBP1
8	Cbs	H2-Ke6	Hmbs	Slc11a1	Ak2	Aco2	Gmppb	Ass1	Il10rb	G6pd2	Akr1a1	Gls	Dld	Atp5g3	Slc1a4	BCL2L12	Il2rb	Hephl1	Bmf	Mtmr3	FOXA1
9	Cth	Hadh	Inppl1	Slc11a2	Ap3b1	Acox1	Ogt	Atp5a1	Il1rn	G6pdx	Aldh1a3	Glud1	Dlst	Atp5h	Acss2	BCL2L14 (BCL-G)	Cd47	Cp	Bid	Mtmr4	PAX8
10	Dhfr	Mttp	Ldha	Slc12a1	Ap3d1	Aspa	Gfpt1	Atp5b	Il2ra	Glyctk	Aldh3a1	Got1	Fh1	Atp5j	Slc38a2	BCL2L15 (Bfk)	Lag3	Fth1	Bik	Mtmr6	DPF2
11	Ftcd	Pparg	Mthfd2	Slc12a2	Xiap	Ada	Slc7a5	Slc7a1	Itch	Gpi1	Aldh3b1	Got2	Idh1	Atp5j2	Cad	BNIP2	Lgals9	Ftl1	Bax	Mtmr7	POLR2A
12	Gart	Scd1	Nme1	Slc12a3	Arpc1b	Adk	Dhdds	Bcl6	Itk	H6pd	Aldh3b2	Slc1a5	Idh2	Atp5k	Acly	BAX	Cd244	Steap2	Bak1	Mtmr9	SMARCE1
13	Gnmt	Srebf1	P4ha1	Slc12a4	Rab27a	Adsl	Alg11	Cox7a1	Psmb8	Idnk	Aldoa	Ctps	Idh3a	Atp5l	Slc38a1	BAK1	Pdcd1	Steap3	Bad	Pi4ka	MYC
14	Mat1a	Srebf2	Pafah1b3	Slc12a5	Atm	Aga	Pgm3	Cpt1a	Mvk	Pfkl	Aldoart1	Ctps2	Idh3b	Atp5o	Gls2	BOK	Sirpa	Steap4	Bag1	Pi4k2a	SMARCA5
15	Mat2a	Nr1h3	Plod1	Slc12a6	B2m	Gla	Ddost	Dhfr	Pdcd1	Pfkm	Aldob	Slc1a4	Idh3g	Atp6ap1	Ppat	BID	Tnfrsf18	Glrx5	Cad	Pip4k2a	MNT
16	Mtrr	Mecr	Rpn2	Slc12a7	Bach2	Agxt	Rnf31	Fasl	Pepd	Pfkp	Aldoc	Slc38a2	Mdh1	Atp6v0a1		BCL2L11 (BIM/BOD)	Cd40	Tfr2	Diablo	Pip4k2b	ZNF217
17	Dnmt1	Acsl4	Rrm2	Slc12a8	Bcl10	Aicda	Ogdh	Fasn	Prf1	Pgd	Bpgm	Slc38a4	Mdh2	Atp6v0a4		BAD	Cd27	Hamp	Xiap	Pip4k2c	TBP
18	Dnmt3a	Acaa2	Srm	Slc12a9	Blm	Ak1	Slc35a2	Fbp1	Prkcd	Pgls	Dlat	Cad	Ogdh	Atp6v0b		BMF	**Tnfrsf9**	Ncoa4	Fadd	Pip5k1a	JUND
19	Dnmt3b	Mlxipl	Tk1	Slc13a1	Btk	Ak2	Pisd	G6pdx	Rasgrp1	Pgm1	Dld	Slc38a1	Ogdhl	Atp6v0c		PMAIP1 (NOXA)	Cd40lg	Hfe	Tradd	Pip5k1c	FOS
20	Mtfmt	Acss2	Dtymk	Slc13a2	Serping1	Alpl	Umps	Gapdh	Rheb	Pgm2	Eno1	Rimklb	Pck1	Atp6v0d1		HRK (DP5)	**Cd70**	Aco1, IRP2	Aifm1	Pip5kl1	CTCF
21	Mthfd1	Dgat2	Tsta3	Slc13a3	C1qa	Akt2	Gpx4	Gata3	Sh2d1a	Prps1	Eno2	Gpt2	Pck2	Atp6v0d2		BBC3 (PUMA)	**Cd70**	Aco2	Ripk1	Pdk1	RFX5
22	Mthfd1l	Oxsm	Tyms	Slc13a4	C1qb	Alas2	Gale	Gclc	Cd27	Prps1l1	Eno3	Aldh4a1	Pcx	Atp6v0e		BNIP1	Tnfsf9	IREB2	Ripk3	Pik3ca	ZNF687
23	Mthfd2	Ehhadh	Umps	Slc13a5	C1qc	Aldh3a2	Alg13	Gls	Cd70	Prps1l3	Eno4	Gls2	Pdha1	Atp6v1a		BNIP3	Tnfrsf4	Hepb1, Nrf2	Mlkl	Pik3cb	MTA1
24	Mthfd2l	Acsl3	Plod3	Slc14a1	C2	Aldoa	Hcfc1	Got1	Tsc2	Prps2	Fbp1	Nags	Pdha2	Atp6v1b1		BIK	Tnfsf4	UCP2	Slc39a7	Pik3cd	CREB1
25	Mthfr	Cpt1c	Slc25a13	Slc14a2	Ciita	Gfer	Slc25a22	Got2	Zap70	Rbks	Fbp2	Cps1	Pdhb	Atp6v1b2		DNM1L	Ceacam1	UCP3	Nlrp3	Pik3cg	NRF1
26	Mthfs	700061G19R	Pmm2	Slc15a1	C9	Ampd3	Pten	Hif1a	Sh3bp2	Rgn	G6pc	Psat1	Rheb	Atp6v1c1		FIS1	Icosl	Slc25a4, ANT	Tnfrsf1a	Pik3ip1	GATAD2B
27	Mtr	Acox3	Mogs	Slc15a2	Hyou1	Mat1a	Asah1	Hk1	Mefv	Rheb	G6pc2	Gclc	Sdha	Atp6v1c2		MFF	Tnfsf14	5a37, Mitofe	Fasl	Pik3r1	Zfp592
28	Phgdh	Echs1	Paics	Slc15a3	Casp8	Slc25a4	Mmadhc	Hk2	Lpin2	Rpe	G6pc3	Gclm	Sdhb	Atp6v1d		MFN1	Pvr	Mitoferrin2	Fas	Pik3r2	ATF2
29	Ppat	Acsbg1	Cad	Slc15a4	Ctla4	Ap1s1	Agps	Idh1	Magt1	Rpia	Galm	Ppat	Sdhc	Atp6v1e1		MFN2	Icos	FXN	Tnfsf12	Pik3c2a	ATF7
30	Psat1	Hadha	B3gat3	Slc15a5	Cd19	Atg5	Pex2	Il2ra	Unc13d	Taldo1	Gapdh	Gpt	Sdhd	Atp6v1e2		OPA1	Cd160	Elavl1	Tnfrsf25	Pik3c3	CBFA2T3
31	Psph	Olah	Srd5a1	Slc16a1	Ms4a1	Apoa1	Mtm1	Ldha	Slc29a3	Tkt	Gapdhs	Tsc2	Sucla2	Atp6v1f		PLD6	**Tnfrsf9**	Elavl2	Tnfsf10	Prkca	MEIS2
32	Sardh	Acacb	Uck2	Slc16a10	Cd3d	Apoc2	Esr2	Slc3a2	Lrba	Tktl1	Gck	Rheb	Suclg1	Atp6v1g1		MIEF1	Cd226	IRF5	Tnfrsf10b	Pik3c2b	ESR1
33	Shmt1	Acly	Chpf2	Slc16a11	Cd3e	Apoc3	Arsb	Mdh1	Rltpr	Tktl2	Gpi1		Suclg2	Atp6v1g2			Btla	Fbxl5	Casp1	Pik3c2g	SREBF1
34	Shmt2	Acaca	Rpn1	Slc16a12	Cd3g	Aprt	Piga	Mthfd2	Ap1s3	Tsc2	Hk1		Tsc2	Atp6v1g3			Pdcd1lg2	Hmox1	Casp3	Inpp4a	RCOR1
35	Tyms	Acat1	Acly	Slc16a13	Cd247	Aqp7	Coa5	Nfe2l2	Ctps		Hk2			Atp6v1h			Cd274	Bdh2	Casp7	Inpp5d	RBM25
36	Prkaa1	Acat2	Shmt2	Slc16a14	Cd79a	Ar	Adar	Otc	Tpp2		Hk3			Cox10			Cd276	Tet1	Casp8	Inpp5e	ZFX
37	Tsc2	Acaa1a	Atic	Slc16a2	Cd81	Arg1	Pus1	Pck1			Hkdc1			Cox11			Adora2a	Tet2	Casp9	Inpp5b	EP300
38	Slc25a32	Acsl6	Ehmt2	Slc16a3	Cd8a	Arsb	Dse	Pdcd1			Ldha			Cox15			Vtcn1	Gpx1	Cflar	Inpp1	RAD21
39	Gldc	Mcat	Ggct	Slc16a4	Cfh	Arsa	Nr3c1	Pfkm			Ldhal6b			Cox17			Tnfsf18	Gpx2	Sh2d1a	Inpp5a	HNRNPK
40		Hadhb	Alg3	Slc16a5	Cfi	Asah1	Ext2	Pgk1			Ldhb			Cox4i1			Kir3dl1	Gpx3	Il2ra	Inpp5f	GRHL2
41		Cbr4	Pycr1	Slc16a6	Cftr	Ass1	Pigc	Pgk2			Ldhc			Cox4i2			Tigit	Gpx5	Atg3	Inppl1	OVOL1
42		Acaa1b	Gmps	Slc16a7	Coro1a	Fxyd2	Ehhadh	Pkm			Minpp1			Cox5a			Havcr2	Gch1	Atg7	Fig4	OVOL2
43		Acsf3	Flad1	Slc16a8	Tpp1	Atp6v1a	Mogs	Rheb			Pck1			Cox5b			4632428N05R	Csf2	Hrk	Ocrl	SNAI1
44		Acsbg2	Alg8	Slc16a9	Copa	Atp6v1e1	Slc6a9	Rorc			Pck2			Cox6a1			Igsf11	Il17a	Tsc2	Egf	SNAI2
45		Acsl5	Tpi1	Slc17a1	Cr2	Atp7a	Slc39a8	Foxp3			Pdha1			Cox6a2				Il17f	Tnfrsf21	Ing2	ZEB1
46		Tsc2	GPI1	Slc17a2	Csf2ra	Atp7b	Mmaa	Shmt1			Pdha2			Cox6b1				Il17ra	Bbc3	Dok1	ZEB2
47		Rheb	Pkm	Slc17a3	Csf2rb	Slc7a2	Lipe	Slc16a1			Pdhb			Cox6b2				Il6ra	Daxx	Dok2	TWIST
48			Ctps	Slc17a5	Csf3r	Auh	Hprt	Slc16a7			Pfkl			Cox6c				Il1R1	Apaf1	Tiam1	TWIST2
49			Chpf	Slc17a6	Ctsc	Baat		Slc1a5			Pfkm			Cox7a2				Il2ra	Trp53	Rab11a	VTCN1
50			Eno1	Slc17a7	Cyba	Bcat2		Slc20a1			Pfkp			Cox7a2l				Il23r	Traf1	Jak1	
51			Tsc2	Slc17a8	Cybb	Bckdha		Slc2a1			Pgam1			Cox7b				Rheb	Traf2	Tsc2	
52			Rheb	Slc17a9	Cd55	Bckdk		Sod1			Pgam2			Cox7b2				Rorc	Tnfrsf1b	Pten	
53				Slc18a1	Dnase1l3	Glb1		Sod2			Pgk1			Cox7c				Foxp3			
54				Slc18a2	Dnase2a	Blk		Sptlc2			Pgk2			Cox8a				Tsc2			
55				Slc18a3	Dnmt3b	C1qbp		Prdx2			Pgm1			Cox8b				Tbx21			
56				Slc18b1	Fadd	Cat		Tsc2			Pgm2			Cox8c							
57				Slc19a1	Fas	Cbs		Ikzf2			Pklr			Cyc1							
58				Slc19a2	Fasl	Scarb2		Acaa2			Pkm			Ndufa1							
59				Slc19a3	Fcgr3	Chkb		Batf			Rheb			Ndufa10							
60				Slc1a1	Fpr1	Tpp1		Atp6ap1			Slc2a1			Ndufa11							
61				Slc1a2	G6pdx	Cln3		Tbx21			Tpi1			Ndufa13							
62				Slc1a3	Slc37a4	Abcc2		Acss2			Tsc2			Ndufa2							
63				Slc1a4	Gata2	Cox6a1		Ndufc1						Ndufa3							
64				Slc1a5	Gfi1	Cox8a		Uqcrh						Ndufa4							
65				Slc1a6	Ostm1	Cp		Pgm1						Ndufa5							
66				Slc1a7	Hc	Cpox		Sdha						Ndufa6							
67				Slc20a1	Hells	Cpt1a		Cers4						Ndufa7							
68				Slc20a2	Foxn1	Cpt2		Sdhb						Ndufa8							
69				Slc22a1	Hmox1	Crat		Slc38a2						Ndufa9							
70				Slc22a12	Irf8	Pcyt1a		Dgat2						Ndufab1							
71				Slc22a13	Ifnar2	Ctsc		Atg3						Ndufb10							
72				Slc22a15	Ifngr1	Ctsd		Cox10						Ndufb11							
73				Slc22a16	Ifngr2	Ctsk		Kdsr						Ndufb2							
74				Slc22a17	Cd79b	Cyb561		Adpgk						Ndufb3							
75				Slc22a18	Igll1	Cycs		Pgm2						Ndufb4							
76				Slc22a19	Ikbkb	Cyp11a1		Atg7						Ndufb5							
77				Slc22a2	Ikbkg	Cyp11b2		Pck2						Ndufb6							
78				Slc22a20	Il10	Cyp17a1		Atg16l1						Ndufb7							
79				Slc22a21	Il10ra	Cyp19a1		Sgpp1						Ndufb8							
80				Slc22a22	Il10rb	Cyp24a1		Olah						Ndufb9							
81				Slc22a23	Il12rb1	Cyp27b1		Sptssa						Ndufc1							
82				Slc22a26	Il17ra	Cyp7a1		Slc38a1						Ndufc2							
83				Slc22a27	Irak1	Cyp7b1		Acaca						Ndufs1							
84				Slc22a28	Il1rn	Slc6a3		Shmt2						Ndufs2							
85				Slc22a29	Il2ra	Dbh		Mthfd1						Ndufs3							
86				Slc22a3	Il2rg	Dbt		Gpt2						Ndufs4							
87				Slc22a30	Il7r	Pcbd1		Glo1						Ndufs5							
88				Slc22a4	Itch	Ddc		Gls2						Ndufs6							
89				Slc22a5	Itgb2	Ddost		Pik3c3						Ndufs7							
90				Slc22a6	Itk	Dgat1		Cox15						Ndufs8							
91				Slc22a7	Jak1	Slc25a1		Cps1						Ndufv2							
92				Slc22a8	Jak3	Dhcr7		Pdk1						Ndufv3							
93				Slc23a1	Rpsa	Dhfr		Smox						Sdha							
94				Slc23a2	Lck	Dld		Aldob						Sdhb							
95				Slc23a3	Lig1	Dpagt1		Ppat						Sdhc							
96				Slc24a1	Psmb8	Dpm1		Slc6a1						Sdhd							
97				Slc24a2	Blnk	Dpm2		Acaa1b						Tcirg1							
98				Slc24a3	Lyst	Slc26a2		Sptlc1						Uqcr10							
99				Slc24a4	Masp2	Ebp		Ahcy						Uqcr11							
100				Slc24a5	Mcm4	Egf		Idh2						Uqcrb							
101				Slc25a1	Cd46	Eno3		Acly						Uqcrc1							
102				Slc25a10	Msh6	Ephx1								Uqcrc2							
103				Slc25a11	Msn	Epm2a								Uqcrfs1							
104				Slc25a12	Mvk	Esr1								Uqcrh							
105				Slc25a13	Myd88	Esr2								Uqcrq							
106				Slc25a14	Ncf1	Ext1								Cox7a1							
107				Slc25a15	Ncf2	Ext2								Ndufv1							
108				Slc25a16	Ncf4	Fah								Ndufa12							
109				Slc25a17	Nfkb1	Fbp1								Atp5f1							
110				Slc25a18	Nfkb2	Fdxr								Atp6v0a2							
111				Slc25a19	Pepd	Fech								Tsc2							
112				Slc25a2	Cfp	Lpin1								Rheb							
113				Slc25a20	Prf1	Folr1															
114				Slc25a21	Pik3r1	Fxn															
115				Slc25a22	Prkcd	Ftcd															
116				Slc25a23	Pms2	Fth1															
117				Slc25a24	Pnp	Ganab															
118				Slc25a25	Pola1	G6pc															
119				Slc25a26	Pole	Slc37a4															
120				Slc25a27	Pole2	Gaa															
121				Slc25a28	Prkdc	Gabra1															
122				Slc25a29	Psen1	Gabra6															
123				Slc25a3	Pstpip1	Gabrb1															
124				Slc25a30	Pten	Gabrb2															
125				Slc25a31	Ptprc	Gabrb3															
126				Slc25a32	Rac2	Gabrd															
127				Slc25a33	Rag1	Gabrg2															
128				Slc25a34	Rag2	Gad1															
129				Slc25a35	Ranbp2	Galc															
130				Slc25a36	Rasgrp1	B4galnt1															
131				Slc25a37	Relb	Galnt3															
132				Slc25a38	Rfxank	Galt															
133				Slc25a39	Rorc	Gamt															
134				Slc25a4	Sema3e	Gata1															
135				Slc25a40	Foxp3	Gba															
136				Slc25a41	Sh2d1a	Gch1															
137				Slc25a42	Clpb	Gdap1															
138				Slc25a43	Stat1	Gpd1															
139				Slc25a44	Stat3	Gfpt1															
140				Slc25a45	Stat5b	Ggps1															
141				Slc25a46	Stim1	B4galt1															
142				Slc25a47	Stxbp2	Ggt1															
143				Slc25a48	Tap1	Gif															
144				Slc25a5	Tap2	Gclc															
145				Slc25a51	Tapbp	Galk1															
146				Slc25a53	Tbx1	Glul															
147				Slc25a54	Tcf3	Glra1															
148				Slc26a1	Tcn2	Glrb															
149				Slc26a10	Tert	Slc6a9															
150				Slc26a11	Thbd	Gm2a															
151				Slc26a2	Tnfaip3	Bscl2															
152				Slc26a3	Tnfrsf11a	Gnmt															
153				Slc26a4	Tnfrsf1a	Gnpat															
154				Slc26a5	Cd40	Got2															
155				Slc26a6	Cd27	Gpaa1															
156				Slc26a7	Tnfsf11	Pigq															
157				Slc26a8	Tnfsf12	Gsr															
158				Slc26a9	Cd40lg	Gria4															
159				Slc27a1	Cd70	Grin1															
160				Slc27a2	Traf3	Grin2a															

Human Small Libraries

Library number	RMK022	RMK023
Library name	Human Customer #1	Human Customer #2
Targets	Transcrition factors	Disease-lined genes
Vector/Marker	Lentivirus/Puro	Lentivirus/Puro
1	ELF1	ACSM1
2	ELF2	AHI1
3	ELF3	ANKRD55
4	ELF4	ATP8B2
5	ELF5	ATXN2
6	GATA3	C5orf56 (IRF1-AS1)
7	CTBP1	CD86
8	FOXA1	CLDN1
9	PAX8	DCTD
10	DPF2	ERAP2
11	POLR2A	FAS
12	SMARCE1	HBP1
13	MYC	IL1RAP
14	SMARCA5	IL2
15	MNT	IL21
16	ZNF217	IL2RA
17	TBP	IL2RB
18	JUND	IL6R
19	FOS	IL6ST
20	CTCF	ILDR1
21	RFX5	IRF1
22	ZNF687	IRF4
23	MTA1	JAK1
24	CREB1	KIF20B
25	NRF1	LNPEP
26	GATAD2B	LOR
27	ZNF592	LPHN2
28	ATF2	PRR9
29	ATF7	PTH1R
30	CBFA2T3	PTPN2
31	MEIS2	PTPN22
32	ESR1	RCN1
33	SREBF1	RNF215
34	RCOR1	RUNX1
35	RBM25	SCUBE1
36	ZFX	SH2B3
37	EP300	SMAD2
38	RAD21	STAT4
39	HNRNPK	TENM3
40	GRHL2	TYK2
41	OVOL1	TYRP1
42	OVOL2	UBE2L3
43	SNAI1	USP40
44	SNAI2	WDFY4
45	ZEB1	ZFP36L1
46	ZEB2	IFNG
47	TWIST	IL17
48	TWIST2	TBET/TBX21
49	VTCN1	RORC
50		GATA3
51		SOCS1
52		IKAROS

161	Slc27a3	Trex1	Grin2b
162	Slc27a4	Tfrc	Nr3c1
163	Slc27a5	Tnfrsf4	Grm1
164	Slc27a6	Ung	Grn
165	Slc28a1	Vps45	Gss
166	Slc28a2	Was	Gsta1
167	Slc28a3	Wdr1	Gys1
168	Slc29a1	Zap70	Hadh
169	Slc29a2	Ikzf1	Hsd17b10
170	Slc29a3	Hax1	Hal
171	Slc29a4	Sh3bp2	Hacc1
172	Slc2a1	Srp54a	Hccs
173	Slc2a10	Rbck1	Hcfc1
174	Slc2a12	Usp18	Hexa
175	Slc2a13	Clcn7	Hexb
176	Slc2a2	Tcirg1	Hfe
177	Slc2a3	Nbn	Hgd
178	Slc2a4	Tnfl2	Hk1
179	Slc2a5	Elane	Hmbs
180	Slc2a6	Cflvr1	Hmgcl
181	Slc2a7	Ctps	Hmgcs2
182	Slc2a8	Slc46a1	Hmox1
183	Slc2a9	Nhp2	Hnf4a
184	Slc30a1	Magi3k14	Hpd
185	Slc30a10	Rfx5	Hpgd
186	Slc30a2	Irf7	Lipc
187	Slc30a3	Irf3	Hsd11b1
188	Slc30a4	Icos	Hsd11b2
189	Slc30a5	Smarca41	Hsd17b3
190	Slc30a6	Atp6ap1	Hsd17b4
191	Slc30a7	Unc93b1	Hsd3b2
192	Slc30a8	Nfat5	Hspd1
193	Slc30a9	Il1f5	Hspa9
194	Slc31a1	Mefv	Ndst1
195	Slc31a2	Ext3	Hyal1
196	Slc32a1	Tyk2	Ids
197	Slc33a1	Samhd1	Idua
198	Slc34a1	Adar	Inppl1
199	Slc34a2	Tbk1	Insr
200	Slc34a3	Mogs	Sit3a
201	Slc35a1	Tnfrsf13b	Itpa
202	Slc35a2	Bcl11b	Itpr1
203	Slc35a3	Stk4	Itpr2
204	Slc35a4	Nckfn	Kcna1
205	Slc35a5	Il21r	Kcnj10
206	Slc35b1	Il21	Kcnj11
207	Slc35b2	Lpin2	Khk
208	Slc35b3	Nop10	Lamp2
209	Slc35b4	Psenen	Lcat
210	Slc35c1	Ndn2	Ldha
211	Slc35c2	Sbds	Ldhb
212	Slc35d1	Taz	Cog1
213	Slc35d2	Cdca7	Ldlr
214	Slc35d3	Magt1	Lfng
215	Slc35e1	Rnaseh2b	Lipa
216	Slc35e2	Jagn1	Lipe
217	Slc35e3	Inpl81	Phyh
218	Slc35e4	Rnaseh2c	Lpl
219	Slc35f1	G6pc3	Lto4s
220	Slc35f2	Ctc1	Alad
221	Slc35f3	Gins1	Amacr
222	Slc35f4	Cllg	Man2b1
223	Slc35f5	Rnaseh2a	Man2b2
224	Slc35f6	Tnrt1	Masa
225	Slc35g1	Rnf168	Mc2r
226	Slc35g2	Unc13d	Rdh11
227	Slc35g3	Nbas	Mocs2
228	Slc36a1	Slc29a3	Mdh2
229	Slc36a2	Ifih1	Mpv17
230	Slc36a3	Sms10	Mthfr
231	Slc36a4	Tnfrsf13c	Mtm1
232	Slc37a1	Spink5	Mttp
233	Slc37a2	Tmem173	Mut
234	Slc37a3	Parn	Mvk
235	Slc37a4	Sbs11	Naga
236	Slc38a1	Rhoh	Ndufa2
237	Slc38a10	Dock8	Ndufa4
238	Slc38a11	Ercc6l2	Ndufv4
239	Slc38a2	Dnajc21	Neu1
240	Slc38a3	Urba	Neurod1
241	Slc38a4	Larntor2	Nfu1
242	Slc38a5	Smarcd2	Npc1
243	Slc38a6	230052122R	Slc11a2
244	Slc38a7	Usb1	Nudt6
245	Slc38a8	Traf3ip2	Oat
246	Slc38a9	Ticam1	Ogdh
247	Slc39a1	Fermt3	Slc25a15
248	Slc39a10	Mtmr6l1	Otc
249	Slc39a11	Obfc1	Pah
250	Slc39a12	Card11	Pax4
251	Slc39a13	Sp110	Prk1
252	Slc39a14	Crat1	Pdha1
253	Slc39a2	Pgm3	Enpp1
254	Slc39a3	C7	Pdx1
255	Slc39a4	C3b	Pepd
256	Slc39a5	Cebpe	Pex11b
257	Slc39a6	Tirap	Pex16
258	Slc39a7	Dclre1b	Pex7
259	Slc39a8	Tlr3	Pfkm
260	Slc39a9	Card14	Pgk1
261	Slc3a1	Rfxap	Pgr
262	Slc3a2	Il17rc	Abcb4
263	Slc40a1	Wipf1	Phka1
264	Slc41a1	Wrap53	Piga
265	Slc41a2	Tmc6	Pik3r1
266	Slc41a3	Tmc8	Pip5k1c
267	Slc43a1	Tlr37	Pklr
268	Slc43a2	Mx1	Plcb1
269	Slc43a3	Tlr7	Plcb3
270	Slc44a1	Dclre1c	Plcb4
271	Slc44a2	Slc35c1	Plcd1
272	Slc44a3	C8a	Pnp
273	Slc44a4	Rtkn	Polg
274	Slc44a5	Mafk1	Por
275	Slc45a1	Dkc1	Ctsa
276	Slc45a2	Agtr1a	Ppox
277	Slc45a3	Il17f	Inpp5k
278	Slc45a4	Nod2	Pprt1
279	Slc46a1	Irak4	Prkcsh
280	Slc46a2	Zbtb24	Prodh
281	Slc46a3	Rnf31	Prps1
282	Slc47a1	Rtel1	Psap
283	Slc47a2	Irf2bp2	Pten
284	Slc48a1	Gimap5	Pts
285	Slc4a1	Lig4	Pex19
286	Slc4a10	Chd7	Abcd3
287	Slc4a11	Cd3e1	Abcd4
288	Slc4a2	Fat4	Pex2
289	Slc4a3	Card9	Pex5
290	Slc4a4	Plekhm1	Pygm
291	Slc4a5	Krnt2d	Rbp3
292	Slc4a7	Otulin	Rbp4
293	Slc4a8	Cflvr2	Rdh5
294	Slc4a9	Nlrp1b	Rbp1
295	Slc50a1	Vps13b	Rnaseh1
296	Slc51a	Isg15	Rpe65
297	Slc51b	Epg5	Rpia
298	Slc52a2	C3ra	Nr1h4
299	Slc52a3	C1s2	Scp2
300	Slc5a1	C4b	Sord
301	Slc5a10	Cd59b	Selenbp1
302	Slc5a11	Lat	Sgpl1
303	Slc5a12	Nfwj1	St3gal3
304	Slc5a2	Dock2	St3gal5
305	Slc5a3	Mysm1	Clpb
306	Slc5a4a	Kdm6a	Slc10a1
307	Slc5a4b	Tpp2	Slc10a2
308	Slc5a5	Il12b	Slc12a3
309	Slc5a6	Stat2	Slc16a1
310	Slc5a7	C3	Slc1a1
311	Slc5a8	C5	Slc1a2
312	Slc5a9	Cfb	Slc1a3
313	Slc6a1		Slc22a5
314	Slc6a11		Slc22a12
315	Slc6a12		Slc2a1
316	Slc6a13		Slc2a2
317	Slc6a14		Slc3a1
318	Slc6a15		Slc5a1
319	Slc6a17		Slc7a5
320	Slc6a18		Slc7a7
321	Slc6a19		Smpd1
322	Slc6a2		Sms
323	Slc6a20a		Spr
324	Slc6a20b		Sptlc2
325	Slc6a3		Scarb1
326	Slc6a4		Ssr4
327	Slc6a5		Star
328	Slc6a6		Stra6
329	Slc6a7		Suclg2
330	Slc6a8		Abcc8
331	Slc6a9		Surf1
332	Slc7a1		Taldo1
333	Slc7a10		Tbxas1
334	Slc7a11		Hnf1a
335	Slc7a12		Hnf1b
336	Slc7a13		Tcn2
337	Slc7a14		Tfam
338	Slc7a15		Th
339	Slc7a2		Tkt
340	Slc7a3		Tmem165
341	Slc7a4		Tpi1
342	Slc7a5		Tpmt

343	Slc7a6	Tnsx1
344	Slc7a7	Tfrc
345	Slc7a8	Cmpk2
346	Slc7a9	Tyr
347	Slc8a1	Uxp2
348	Slc8a2	Slc35a2
349	Slc8a3	Ugcg
350	Slc8b1	Umps
351	Slc9a1	Ung
352	Slc9a2	Uqcrq
353	Slc9a3	Unc0
354	Slc9a4	Uros
355	Slc9a5	Usp9x
356	Slc9a6	Vdr
357	Slc9a7	Xdh
358	Slc9a8	Nt5e
359	Slc9a9	Papss2
360	Slc9b1	Slco2a1
361	Slc9b2	Slc35a1
362	Slc9c1	Mpdu1
363		Rbck1
364		Btd
365		Slc27a5
366		Tenm2
367		Slc27a4
368		Cln8
369		Mecr
370		Aifm1
371		Sgsh
372		Axns
373		Sec23b
374		Dguok
375		Slc25a10
376		Yme1l1
377		Pign
378		Pdhx
379		Abcg5
380		Abcb11
381		Naglu
382		Abcc6
383		Tango2
384		Vkorc1
385		Glrx1
386		Tpk1
387		Dnajc12
388		Aregat3
389		Aass
390		Slc7a9
391		Hacd1
392		Tlpa
393		Mrps7
394		Tfr2
395		Prpla6
396		Atp8a2
397		Polg2
398		Hsbst1
399		Acsl4
400		Gne
401		Slc25a13
402		Galns
403		Nus1
404		Coq5
405		Hgsnat
406		Slc40a1
407		Coa3
408		Trmt10c
409		Slc52a2
410		Sco1
411		Pla2g6
412		Chst3
413		Fut8
414		Gria3
415		Porcn
416		Clpp
417		Slc40a1
418		Pmm2
419		Sult2b1
420		Cd320
421		Elovl1
422		Ndufa1
423		Atp6ap1
424		Ext3
425		Wdr45
426		Atp8b1
427		Myrc1
428		Slc1a4
429		Pgam2
430		Samhd1
431		Pdss1
432		Dgke
433		Pigp
434		Prodh2
435		Pex14
436		Mrpl12
437		Glrx
438		Timm22
439		Ivd
440		Pus1
441		Adar
442		Suclg1
443		Aldh18a1
444		Ctsf
445		Tbk1
446		Pex3
447		Tsr2
448		Mlycd
449		Tdo2
450		Alg2
451		Moos1
452		Nfu1
453		Dhodh
454		Stap1
455		Aldh1a3
456		Slc25a20
457		Snf5a3
458		Mrgs
459		Tk2
460		Cldn10
461		Chst11
462		Treh
463		Hibadh
464		Sumf1
465		Nphs1
466		Thap11
467		C1galt1c1
468		Bco1
469		Slc29a1
470		Inpp5e
471		Mrps22
472		Mrps23
473		Htra2
474		Dpys
475		Lpin2
476		Cubn
477		Sdhc
478		Ethe1
479		Sdhaf2
480		Rmnd1
481		Ndufa9
482		Apoa5
483		Cox7b
484		Acer3
485		Ndufb9
486		Mvmc1
487		Mrps16
488		Tmem126a
489		Cox20
490		Cox14
491		Iscu
492		Sar1b
493		Tsfm
494		Cyc1
495		Pam16
496		Nmnat1
497		Ndufb3
498		Timm50
499		Pgm1
500		Alg14
501		Taz
502		Etfdh
503		Prpla2
504		Pmpca
505		Acad6b
506		Pccb
507		Sdhd
508		Sdha
509		Acad8
510		Tnt1
511		Plin5
512		Uqcrc2
513		Oxct1
514		Magt1
515		Gatm
516		Trak1
517		Mmachc
518		Ndufa6
519		Rnaseh2b
520		Lipt2
521		Pdxk1os1
522		Ndufa13
523		Ndufb8
524		Uqcc2

525	Ndufa10
526	Slc25a19
527	Pigc
528	Far1
529	Dhdds
530	Hoga1
531	Mtpap
532	Prpla8
533	Slc25a46
534	Abhd5
535	Alxg8
536	Agpat2
537	Uqcrb
538	Cog6
539	Slc39a8
540	Pigm
541	Alg13
542	Slc25a26
543	Sdhb
544	Dnajc19
545	Jagn1
546	Dcxr
547	Coa6
548	Coq9
549	Npc2
550	Atad1
551	Apopt1
552	Gcsh
553	Rnaseh2c
554	Pdhb
555	Slc25a22
556	Pomgnt1
557	Mto1
558	Slit3b
559	Sdhaf1
560	Ndufs3
561	G6pc3
562	Lmbrd1
563	Slc39a13
564	Gphbp1
565	Tmem126b
566	Ndufaf4
567	Dpm3
568	Mocos
569	Pmvk
570	Elac2
571	Nadk2
572	Elovl5
573	Vars2
574	Prkc1
575	Phkg2
576	Isca1
577	Pycr2
578	Gmppa
579	Mrpl44
580	Ndufaf5
581	Hfe2
582	Alg3l2
583	Mtfmt
584	Ptpmc1
585	Ccdc115
586	Slc52a3
587	Ndufaf1
588	Cad
589	Rnaseh2a
590	Ndufa11
591	Coa7
592	Slc25a32
593	Agk
594	Fars2
595	Tmt1
596	Sdr9c7
597	Yars2
598	Tacc1
599	Pigw
600	Gtpbp3
601	Cox10
602	Tmem70
603	Mtpep
604	Atp6ap2
605	Wars2
606	Kynu
607	Slc29a3
608	Pdss2
609	Pex1
610	Cyp2u1
611	Fuca1
612	Prpt1
613	Ubiad1
614	Tmprss6
615	Tars2
616	Coq2
617	Cars2
618	Sars2
619	Tmsu
620	Slc39a4
621	Mccc1
622	Ddhd2
623	Pex13
624	Chst14
625	Cep89
626	Mfsd8
627	Lrpprc
628	B3gat3
629	Tic19
630	Ndufv2
631	Phykpl
632	Appl1
633	Glrx5
634	Pmpcb
635	Slc25a42
636	Mcee
637	Dvrn1l
638	Ptce1
639	Abcb6
640	Dmgdh
641	Lonp1
642	Opa1
643	Ehhadh
644	Acbd5
645	Gbe1
646	Gale
647	Isca2
648	Slc6a19
649	Pank2
650	Mgme1
651	Prk2
652	Shpk
653	Pomk
654	Dhrs24
655	Atp13a2
656	Ppa2
657	Ndufs7
658	Secisbp2
659	Oplah
660	Lyrm7
661	Ndufaf2
662	Gns
663	Fastkd2
664	Mff
665	Ispd
666	Cant1
667	Coa5
668	Abhd12
669	Grhpr
670	Cog2
671	Trmt5
672	Lmf1
673	Clns6
674	Cpsi1
675	Mfsd2a
676	Alpi
677	Slc10a7
678	Nubpl
679	Tmtmdc1
680	Ndufaf6
681	Mrap
682	Mtmr2
683	Agl
684	Vps33a
685	Mboat7
686	Mmab
687	Rdh12
688	Slbf1
689	Mccc2
690	Cpt1c
691	Bola3
692	Ak7
693	Slc25a12
694	Pigt
695	Mrps34
696	Lcat
697	Lias
698	Slc19a3
699	Clns
700	Elovl4
701	Hamp
702	Cox4i2
703	Kars
704	Acox2
705	Echs1
706	Amn

707	Mrpl3
708	Mcoln1
709	Nans
710	Cnnm2
711	Sod5a2
712	Sfxn4
713	Hadha
714	Cog8
715	B3galnt2
716	Kmo
717	D2hgdh
718	Lbr
719	Pomt1
720	Dpyd
721	Ldlrap1
722	Pcsk9
723	Hbpd
724	Pxph
725	Acacb
726	Eogt
727	Hsd3b7
728	Phkb
729	Cog4
730	Lars2
731	Alg9
732	Slc6a8
733	Upb1
734	Fgt4
735	Prpso
736	Pex12
737	Plin1
738	Gck
739	Synj1
740	Cyp27a1
741	Ndufb11
742	Gldc
743	Slc6a5
744	Aldh6a1
745	Tecpr2
746	Nhlrc1
747	Tecr
748	Ppcs
749	Uqcc3
750	Psat1
751	Acaca
752	Haao
753	Clh
754	Mthfs
755	Grm6
756	Prkag2
757	Atic
758	Cigt
759	Mthfd1
760	Zdhhc15
761	Atad3a
762	B4galt1
763	Rars2
764	Slc30a9
765	Mmadhc
766	Mmaa
767	Trip11
768	Acy1
769	Cyb5a
770	Ampd2
771	Cyb5r3
772	Blvra
773	Pgm3
774	Asl
775	Gusb
776	Phka2
777	Pygl
778	Cyp11b1
779	Mpi
780	Mamba
781	Fdps
782	Cox6b1
783	Cdipr
784	Pgh
785	Acat1
786	Acat2
787	Aldh7a1
788	Nr3c2
789	Pcca
790	Etfb
791	Etfa
792	Hlcs
793	Cldn16
794	Slc13a3
795	Ddhd1
796	Slc19a2
797	Slc2a9
798	B3galt6
799	Mrps2
800	Pofut1
801	Slc2a10
802	Bbox1
803	Idh3b
804	Rtn4ip1
805	Mfn2
806	Sugct
807	Mvd
808	Sandh
809	Klf11
810	Tmem199
811	Alg11
812	Alg1
813	Alg3
814	Slc25a38
815	Akr1d1
816	Zdhhc9
817	Pycr1
818	Dhtkd1
819	Mtor
820	Sepsecs
821	Cln5
822	Suox
823	Pde12
824	Zfyve26
825	Aldh4a1
826	Mars2
827	Dse
828	Kctd7
829	Slc19a14
830	Slc18a2
831	Gnptg
832	Aldh5a1
833	Sqg11
834	Pomgnt2
835	Mccc1
836	Iba57
837	Ptrh2
838	Xylt2
839	Nags
840	Mgat2
841	L2hgdh
842	Cog6
843	Pomt2
844	B4galt7
845	Alg12
846	Poglut1
847	Aars2
848	Pex6
849	Ndufs8
850	Tcpm6
851	Cox15
852	Lct
853	Dars2
854	Ndufv2
855	Slc30a10
856	Hhat
857	Hlcch
858	Ndufs1
859	Cps1
860	Man1b1
861	Cog4
862	Dolk
863	Agps
864	Slc35c1
865	Acad9
866	Gatb
867	Mrto1
868	Ampd1
869	Slc25a24
870	Slc35a3
871	Gba2
872	Aldob
873	Pigv
874	Slc30a2
875	Hadhb
876	Slc26a1
877	Aps1c1
878	Mat2a
879	Cyp26b1
880	Slc6a1
881	Gys2
882	Pgsa2
883	Xylt1
884	Cog7
885	Tufm
886	Cxpa4nact1
887	Tat
888	Slc38a8

889	Sqle7
890	Foxred1
891	Sc5d
892	Dlat
893	Slc17a5
894	Glyctk
895	Phgdh
896	Slc13a5
897	Apob
898	Cog5
899	Mtr
900	A4galt
901	Pgap1
902	Impad1
903	Galdn2
904	Slc35d1
905	Cldn19
906	Slc45a1
907	Ppm1k
908	Uroc1
909	Fkrp
910	Nans2
911	Cyp2r1
912	Srnx14
913	Slc36a2
914	Fktn
915	Atpaf2
916	Slc5a2
917	Acsf3
918	Gphn
919	Sptlc1
920	Rnf31
921	Abat
922	Ahcy
923	Fbxl4
924	Vrp
925	Chsy1
926	Gcdh
927	Cbs
928	Pigs
929	Flad1
930	Pik3r5
931	Alg6
932	Ccrl
933	Pgap3
934	Trappc11
935	Glrn2
936	Psd
937	Rfx6
938	Serac1
939	Dna2
940	Pigl
941	Rft1
942	Slc5a6
943	Gmppb
944	Cndp1
945	Fa2h
946	Gars
947	Lyrm4
948	Iars2
949	Pdp1
950	B3galct
951	Alg8
952	Rrm2b
953	Gatc
954	Ugt1a1
955	Opa3
956	Ndufs6
957	Gnptab
958	Prpla1
959	Pigg
960	Amt
961	Cers3
962	Cyp26c1
963	Lipt1
964	Gpx4
965	Vps13b
966	Pex10
967	Scо2
968	Ezg5
969	Pxt100
970	Nt5c3
971	Hprt
972	Rnaset2a
973	Oas1a
974	Car5a
975	Apoa1bp
976	Carkd
977	Ppat
978	Prosc
979	Fit1
980	Sis
981	G6pdx
982	Ins1
983	Gyg
984	Pcx
985	Fh1
986	Atp5a1
987	Atp5d
988	Atp5e
989	Usmg5
990	Pex1
991	2810006K23Rik
992	Timm8a1
993	Park2
994	2410015M20Rik
995	Clk1
996	Adck3
997	Adck4
998	Glyk
999	Ept1
1000	Cyp4f39
1001	Cyp27a1
1002	Akr1c21
1003	Rab7
1004	Tmem5
1005	Large
1006	Chst5
1007	Hykk
1008	Fdxl1
1009	Zfp143
1010	Cyp51
1011	Pigyl
1012	Frmd3
1013	Bckdhb
1014	Agxt2
1015	Nnt
1016	Slc25a3
1017	Ndufv1
1018	Ndufa12
1019	Ndufa12
1020	Bcs1l
1021	Tymp
1022	Sacs
1023	Tmlhe
1024	Slit2
1025	Pkfyve
1026	Pigg2
1027	ApoE
1028	Fdft1
1029	Abcd1
1030	Pex26
1031	Tusc3
1032	Pigo
1033	Atp6v0a2
1034	Cers1
1035	Cers2
1036	Ears2
1037	Hars2
1038	Stat2