

Genome-wide analysis revealed that DZNep reduces tubulointerstitial fibrosis via down-regulation of pro-fibrotic genes.

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Supplementary Legends.

Suppl. Table 1. List of genes in each group (Groups 1-3).

Suppl. Table 2. List of gene names shown in the Venn diagram (HK2 only, RPTEC only and commonly up-regulated under hypoxia)

Suppl. Table 3. List of primers used for qPCR.

Suppl. Table 1.

Group1

Sefd1	Tpd5211	Chst7
Clic5	Afg311	AU021092
Gss	Ace	Ufsp1
Rufy1	Crot	Prkaca
Zfp207	Copz2	Isoc2b
Guk1	3010026O09Rik	Acp5
Cd36	Igfbp3	Gm14393
Chchd3	Ccdc104	Pstk
Ndufb10	Tspan13	Casc4
1810020D17Rik	Hmger	Mep1b
Hbb-b2	Skiv2l2	Csnk1g2
Hbb-b1	5730469M10Rik	Als2cr4
0610007C21Rik	C1qtnf3	Prkag1
Pth1r	Gpihbp1	Hba-a1
Serpinf2	Hbb-b1	BC003331
Mrpl16	Maged1	Hp1bp3
Mtx1	Cd55	Slco3a1
Ttpa	Hspa14	Aadat
Akr1b10	Fabp4	Cd82
Nckap1	Slc16a4	Lymr1
Enpp5	Ipp	Acsm3
Hmbs	Necap2	Arsg
Gm10639	Tmem30a	Fmo5
Pi4kb	Gclc	Spop
Cyth2	Cyp7b1	Wfdc15b
Pigx	Mpp6	Agps
Acot1	Esm1	Cutc
Tm9sf1	Id1	Entpd5
Arpp19	Nubpl	Gm5918
Uba3	Nudt19	Gm15137
Folr1	Scd1	Stk16
Treh	Cyb561d2	Mpv17l
Fam58b	Slco1a1	3110045C21Rik
	1810049H13Rik	Ankrd24
	Fkbp1a	Fam190a

Uqcrh	Srp9
Lymr2	Fastk
Ubc	Dnase1
Chpt1	Pole4
Mrpl3	Gm10664
E130102H24Rik	Tomm40l
Pex11b	Hgd
Lamtor2	Txn2
Pcolce	Gcnt1
Osgepl1	Ccdc132
2210408F21Rik	
Afap111	
Cox7b	
Tdrd7	
Gyk	
Mff	
Hsd11b1	
Psmc13	
Egf	
Cd36	
Ppt2	
Dap3	
Abhd16a	
Rpl24	
Slc50a1	
2410022L05Rik	
Mers1	
1600012H06Rik	
Ccny	
RP23-3M10.11	
Afmid	
Ptpa	
Erb2ip	
Hba-a2	
Pex3	
Slc12a1	

Group2	Set	Serpina1f
Bcl2l1	Myo1c	5730469M10Rik
Ube2g2	Dcaf11	Gimap4
C8g	Dohh	Qars
Ppfibp1	Serpina1c	Arpc4
Serpina6a	D4Wsu53e	Usp8
Ccar1	Akr1c19	Fbxo36
Chac2	Pop5	Eef1d
Dynll2	Ttc33	Hnf1a
Mterfd1	Fdps	1190007F08Rik
Erbp2ip	Cyp4a32	Ncoa6
Sap18	Setd3	Vim
Hagh	Serpina1a	2700029M09Rik
Sec11c	Tmem116	Uqcc
Gm16286	Gpr112	2210408F21Rik
Pdcd4	Cldn10	Naa30
Fcgr2b	D4Ert22e	Fam36a
Slc12a1	Trappc1	1810020D17Rik
Pcmt2	Dcn	Il11ra1
2810403A07Rik	Gamt	Prpf3
Sfpq	Tardbp	Miox
Abcf2	Sult1a1	Osgep
Fastk	0610037L13Rik	Rangap1
Apoc3	Folh1	0610007C21Rik
Rnf44	Akap1	Pth1r
Gmcs	Chuk	Usf1
Upf3a	Tmsb4x	Secisbp2l
Hspb11	Tsc22d3	Psm11
Mbl1	Myo6	Ssrp1
Jmjd6	Pigp	Hpn
Nt5dc1	Wbp1	5930416I19Rik
Mrpl43	Zfp467	Abhd14a
Synj2bp	Fmr1	Apoe
Pkig	Ftsj1	
Cbs	Phf10	
	Cd82	

Group3	Ptbp2	Stx16
Lpar6	Ccnl2	Cald1
Jun	Mxra8	Fermt2
Rhob	Sparcl1	C1qb
Slc22a12	Anxa3	Ifi47
Thbd	Abp1	Rgl2
Comt	Mgp	Gucy1a3
Cd52	Coro1a	Cd74
S100a6	Ucp2	Lcn2
Tcirg1	Nupr1	ORF61
Tpm4	Bgn	Rbpms
Cnn2	Renbp	Tsc22d3
Hmox1	Eif4ebp1	Fxc1
Timp1	Plat	Mdfic
Crbn	Mak16	Capg
Bola1	Herpud1	Alox5ap
Timp2	Tagln	Rpl10
Rcn3	Anxa2	H2-Eb1
Slc9a3r2	Ccl5	Cdh11
2010111I01Rik	Hspb8	Il34
Cxcl14	Cdkn1c	Sdccag3
Cldn1	Leng8	Fcer1g
Gcfc1	Zc3h7a	Ptprc
Serping1	Slfn2	Col18a1
Twf2	Lum	Icam1
Pkdcc	Wtip	Emr1
Aldh1a7	Cxcl10	Igj
Ldb1	Cd53	Csda
Podxl	Emp3	Lyz1
Casp4	H2-Aa	Marcks
Serpine2	H2-Ab1	Pcgf1
Slamf9	Prkrip1	Sfrs18
Nphs2	H2-DMa	Bcl2a1d
Vim	Wdr45	Anxa1
Vcam1	Serpinb6a	AW112010
	Stap2	Aimp2

Set	Ifi203	Vmp1
Evi2a	Arap1	Tardbp
Ighm	Rpl12	Wbscr27
Tmpo	Echdc2	Hmgcl
Lsp1	Acin1	Nmd3
Leprot	Gng10	Rbm17
Gm2023	Ucp2	Wsb1
Sparc	Tmem208	Hdac7
Clk4	Coq6	Ubxn6
Fbxo8	Slc5a12	Stk11
Sap25	Preb	Hnrpd1
Mndal	Eif4a1	Use1
Psme2	Llg12	Uck11
Arpc3	Cpxm1	Pex16
Pdcd6ip	Kif12	Stk16
D19Wsu162e	Slc50a1	Etl4
Cfh	Hyi	Flna
Tmsb4x	Aspdh	AI480526
Acs14	Hnrpd1	Miox
Rab8b	Ech1	Stab1
Mrps18b	Lhfp	Bud31
Tmbim1	Arpc1b	Unc93b1
Tmsb10	Efemp1	Dcn
Taz	Gnb211	Axl
Mylk	Use1	Traf7
Nr3c1	Rbbp4	Cuedc2
Ranbp1	Rpl10a	Ccr2
Fam108c	Arpc51	Ubxn8
Cdk9	Flna	Parp8
Mtcp1	Trim47	Commd6
Igfbp2	Npm1	Tubgcp3
Gm10639	Mpv17l	Spns2
Cpped1	Zfp40	Papola
Glis2	Ddx26b	Chkb
Plekho1	Adrm1	Morf412
Parp3	Nop56	Rnf213

Col3a1

Emilin1

Egfl7

Cp

H2-Q7

Neu1

Flot1

H2-Ke6

Egfl7

Psme1

H2-Q6

H2-Aa

Suppl. Table2.

HK2

AC009299.5	CANX	EBP
AC016739.2	CAPN2	EDC4
ACAT2	CCND3	EIF4G2
ACOT7	CCT2	ELF3
ACSS2	CCT6A	ENO2
ACTR3	CDC42EP3	EPCAM
AGRN	CDK16	ERGIC1
AHNAK	CDK2AP2	ESYT1
AHNAK2	CDV3	FADS1
AIF1L	CELF1	FAM213A
AKR1B1	CHD3	FAM57A
AMOTL2	CHMP3	FAM65A
ANKLE2	CHRDL1	FANCA
ANKRD10	CLDN1	FARP1
ANP32B	CLDN4	FASN
ANXA3	CLU	FAXC
ARF4	CNIH4	FBXO2
ARHGEF40	COL4A1	FDFT1
ARL6IP1	COL4A2	FDPS
ARPC5	COL7A1	FGB
ASF1B	COL8A1	FKBP9
ATIC	CRIM1	FLII
ATP11A	CRTAP	FLNC
ATP1B1	CTA-276O3.4	FLOT1
ATP2A2	CTD-2116N17.1	FUS
ATXN2L	CTPS1	FXVD2
BIRC7	CYB5B	GABARAPL1
BNIP3	DDX5	GALE
BNIP3P1	DEGS1	GATAD2A
C11orf31	DERA	GLS
C12orf75	DERL2	GNB1
C7orf50	DHCR24	GOT1
CACYBPP2	DNM1	GPC4
CALM1	DNMT1	GPRC5A
	DUSP1	GUCD1
	DYNLT1	H2AFY

H3F3AP4	ITGB1BP1	MARVELD1
HAVCR1	ITGB3	MAT2A
HBEGF	JUND	MCM3
HDAC2	KDELC1	Metazoa_SRP
HIATL1	KIAA1191	MFI2
HK1	KIFC1	MGLL
HMGA1	KLC1	MGMT
HMGB1P5	KPNA2	MICAL2
HMGB2	KPNB1	MICB
HMGNI1P38	KRT80	MMAB
HMGNI2	LAMA5	MMP14
HMGNI2P5	LAMC1	MMP24
HNF1B	LDHA	MOV10
HNRNPA1P48	LDHAP4	MPC2
HNRNPA2B1	LDLR	MPZL1
HNRNPAB	LEMD2	MSANTD3
HNRNPD	LEPROT	MSMO1
HNRNPDL	LGALS1	MT1F
HNRNPH1	LHX1	MTCH2
HNRNPM	LIF	MTHFD1
HNRNPU	LIMK1	MTND1P23
HNRNPUP1	LINC00958	MT-ND5
HP1BP3	LITAF	MT-ND6
HSP90AA1	LMCD1	MVD
HSP90B1	LMNB2	MXRA7
HSPB8	LOXL1	MYBL2
HSPD1	LPCAT1	MYO19
HSPG2	LRRC61	MYO1E
HTATIP2	LRRC8A	MYOF
HYI	LRRN4	NAP1L1
IDH2	LSM14B	NAP1L4
IGF2R	LSR	NBL1
IL11	LSS	NEK6
IMPA2	LTBP4	NES
IMPDH2	MAD1L1	NFE2L1
INSIG1	MAPRE1	NFKBIA

NNMT	PSMA3	SHMT1
NPM1	PSMD11	SLC38A2
NRM	PTGES3	SLCO4A1
NUAK2	PTGES3P1	SNHG6
NUDT21	PTMS	SPCS3
NXN	PTPRF	SPTAN1
OCIAD1	PXMP2	SPTBN1
OCIAD2	RBBP4	SQLE
P3H2	RBCK1	SREBF2
PABPC1	RBMX	SRSF1
PABPC4	RBP7	SRSF3
PALLD	RHOD	SRSF5
PAM	RHOF	SRSF6
PAX8	RN7SL1	SRSF7
PCNA	RNF4	SSC4D
PDZK1IP1	RP11-252P18.1	STAG3
PFKP	RP11-312J18.5	STAT1
PFN2	RP11-333E13.2	STAT2
PGLS	RP11-69L16.5	TAPBP
PGM1	RP11-982M15.2	TARDBP
PGRMC1	RP1-241P17.4	TBCD
PHGDH	RPA1	TCEA3
PLEC	RPL12	TFPI2
PLEKHA2	RPL12P4	TGIF1
PLPP2	RPS12	THOP1
POLE	RPS21P4	TIMP2
POLR2A	RRAS	TMEM139
PPFIBP1	RRM2	TMEM14DP
PPP1CB	RTN4	TMEM184B
PPP1CC	S100A2	TMEM256
PRDX5	SCD	TMEM54
PRKACA	SCDP1	TMEM97
PRKAR1A	SEPT8	TMEM98
PRKCZ	SEPT9	TMPO
PRRC2B	SETP14	TNFRSF12A
PSMA1	SFPQ	TPM4

TPT1
TPT1P9
TRA2B
TRAM1
TRIB3
TRNP1
TXNRD1
UBAC2
UBE2A
UBE2D2
UBE2D3
UBE2MP1
UBE2SP1
UBE2SP2
UFD1L
UGCG
UGDH
UXS1
VCP
WHSC1
WSB2
WWC1
WWTR1
XRCC5
Y_RNA
YWHAB
YWHAH
YWHAZP3
ZDHHC7
ZFAND3
ZFYVE21
ZWINT

RPTEC	AES	AP3D1
A4GALT	AGAP3	APEH
AAAS	AGPAT1	APH1A
AACS	AGPAT3	APOA1BP
AAMP	AGRN	APOBEC3C
AARS	AGTRAP	APOC1
ABHD12	AHCY	APOE
ABHD14B	AHNAK	APRT
ABL1	AIF1L	ARF3
ABR	AIP	ARF5
AC004057.1	AK1	ARFGAP1
AC004453.8	AK2	ARFIP2
AC005943.2	AKR1A1	ARHGAP22
AC007969.5	AKR1B1	ARHGEF1
AC009133.22	AKR7A2	ARL16
AC016734.2	AKT1	ARL2
AC016739.2	AKT1S1	ARL4C
AC079250.1	AKT2	ARL6IP4
AC108479.2	ALAS1	ARMC6
AC111200.7	ALDOA	ARPC1A
ACADVL	ALG3	ARPC1B
ACAT2	ALKBH7	ARPC4
ACLY	ALYREF	ARRDC1
ACOT7	AMFR	ASF1B
ACSS2	AMPD2	ASNA1
ACTR1A	ANAPC11	ASS1
ACY1	ANAPC15	ATG4B
ADAM15	ANGPTL4	ATIC
ADCK4	ANKRD52	ATOX1
ADD1	ANPEP	ATP2A2
ADGRG1	ANXA11	ATP5B
ADIPOR1	AP1B1	ATP5G1
ADRM1	AP1M1	ATP5G2
ADSL	AP1M2	ATP5G2P4
AEBP1	AP2A2	ATP5G3
	AP2S1	ATP5I

ATP5J2	BTBD2	CARM1
ATP5L	BTBD6	CARS2
ATP5LP2	C11orf31	CAST
ATP6V0B	C11orf84	CBX6
ATP6V0C	C11orf98	CCAR2
ATP6V0D1	C12orf10	CCDC124
ATP6V0E2	C12orf57	CCDC167
ATP6V1F	C12orf75	CCM2
ATXN2L	C14orf1	CCND3
ATXN7L3	C14orf159	CD151
AUP1	C16orf13	CD276
AURKAIP1	C17orf62	CD2BP2
AURKB	C17orf89	CD40
B4GALT2	C19orf24	CD44
B4GALT7	C19orf33	CD63
B9D1	C19orf48	CD70
BABAM1	C19orf60	CD99
BACE2	C1orf122	CDC20
BAD	C1orf43	CDC34
BAG6	C1QBP	CDC42EP1
BANF1	C20orf24	CDCA3
BAX	C21orf33	CDCP1
BCAP31	C3	CDH6
BCL2L1	C6orf1	CDIP1
BCL7B	C7orf49	CDK16
BCL7C	C7orf50	CDK2AP2
BID	C9orf69	CDK4
BIRC5	CALM3	CDK9
BLOC1S1	CALR	CDKN1A
BLVRB	CANX	CDKN2A
BOK	CAPG	CENPM
BOLA2B	CAPN1	CERCAM
BOP1	CAPN2	CERS2
BRMS1	CAPNS1	CFL1
BSG	CARD19	CH507-513H4.6
BST2	CARHSP1	CH507-9B2.3

CHCHD10	COPS6	CUEDC1
CHCHD2	COPZ1	CYB561A3
CHCHD5	COQ9	CYBA
CHKB	CORO1B	CYC1
CHMP1A	COTL1	CYP27A1
CHMP3	COX14	CYS1
CHPF	COX17	CYTH2
CHURC1	COX4I1	DALRD3
CIAO1	COX5A	DANCR
CIB1	COX6B1	DAP
CISD3	COX7A2	DAPK3
CKAP4	COX7A2L	DAZAP1
CKLF	COX7B	DBI
CKS2	COX8A	DBNDD1
CLCN7	CPNE2	DBNDD2
CLDN4	CPSF3L	DCTN2
CLIC1	CRAT	DCTN3
CLK3	CREB3	DCTPP1
CLPTM1L	CRIP1	DDA1
CLTA	CRIP2	DDAH2
CLTB	CRLS1	DDB1
CLU	CRTAP	DDOST
CMC2	CRYAB	DDX39A
CMTM3	CS	DDX54
CNIH4	CSK	DEAF1
CNN2	CSNK1G2	DESI1
CNP	CSNK2B	DGCR6L
CNPY2	CTA-276O3.4	DGUOK
CNPY3	CTB-33G10.1	DHCR24
COA3	CTB-63M22.1	DHCR7
COASY	CTBP1	DHPS
COL18A1	CTC-260E6.2	DHX30
COMMD4	CTC-575D19.1	DMKN
COMMD5	CTD-2192J16.15	DMTN
COMTD1	CTD-2270N23.1	DNAAF5
COPE	CTHRC1	DNAJA3

DNAJB11	EIF3G	EVA1B
DNAJC5	EIF3K	EXOSC4
DNM2	EIF4G2	FAAP20
DNPEP	EIF5A	FADD
DNPH1	EIF5AL1	FADS1
DNTTIP1	EIF5AP4	FADS2
DOC2B	EIF6	FAHD2A
DPAGT1	ELAVL1	FAM101B
DPF2	ELF3	FAM134A
DPM2	ELOF1	FAM213B
DPP3	ELOVL1	FAM214B
DRAP1	ELP6	FAM3A
DTYMK	EMC10	FAM50A
DUS1L	EMC6	FAM57A
DUT	EMD	FAM65A
DVL1	EML3	FAM96B
E2F4	EMP3	FARP1
EBP	ENO1	FARSA
ECE1	ENO1P1	FASN
ECH1	ENSA	FASTK
ECHS1	ENSAP2	FAT1
ECI1	ENTPD6	FAU
EDF1	ENY2	FAUP1
EEF1D	EPHA2	FBL
EEF1G	EPHB2	FBLIM1
EEF2	EPHB4	FBN1
EFEMP2	EPN1	FBRSL1
EFHD2	ERBB2	FDFT1
EFTUD2	ERCC1	FDPS
EHD1	ERCC2	FDX1L
EHD4	ERF	FGFR1
EIF1	ERI3	FGFRL1
EIF3B	ESYT1	FIBP
EIF3C	ETFB	FIS1
EIF3CL	ETHE1	FKBP2
EIF3FP3	EVA1A	FKBP4

FKBP8	GCHFR	GUCD1
FKBP9	GCSHP5	GUK1
FLAD1	GDI1	H2AFJ
FLII	GET4	H2AFV
FLOT1	GFER	H2AFX
FLOT2	GGA1	H2AFY
FLYWCH1	GGT1	HADHA
FLYWCH2	GIPC1	HAGH
FOSL1	GLB1	HAX1
FPGS	GLTSCR2	HDGF
FSCN1	GMPPB	HGS
FSTL3	GNAI2	HINT1
FUOM	GNAS	HINT2
FURIN	GNB1	HIP1R
FUS	GNB2	HM13
FXYD2	GNG11	HMBS
FXYD5	GNG5	HMG20B
FXYD6	GPAA1	HMGA1
FZR1	GPI	HMGA1P2
G6PC3	GPR108	HMGA1P8
GABARAP	GPS1	HMGN1P38
GADD45GIP1	GPS2	HMGN2
GAK	GPT2	HMOX2
GAL3ST1	GPX1	HN1
GALE	GPX1P1	HNF1B
GALK1	GPX4	HNRNPAB
GALNT14	GRAMD1A	HNRNPD
GALNT2	GRHPR	HNRNPH1
GAMT	GRWD1	HNRNPU
GANAB	GSK3A	HNRNPUL1
GAPDH	GSPT1	HOMER3
GAPDHP1	GSS	HOXB2
GAPDHP65	GSTP1	HPCAL1
GAPDHP72	GTF2F1	HRAS
GAS6	GTF3C5	HSD17B10
GATAD2A	GTPBP2	HSD3B7

HSP90AB1	ISOC2	LMNA
HSP90B1	ISYNA1	LMNB2
HSPA5	ITGA3	LONP1
HSPB8	ITGB1BP1	LOXL1
HSPBP1	ITGB5	LOXL2
HSPD1	ITPA	LPCAT4
HSPE1	JOSD2	LRP10
HSPE1P2	JPX_1	LRPAP1
HSPG2	JTB	LRRC61
HYAL2	JUND	LRRC75A-AS1
HYI	JUP	LRRN4
HYOU1	KCNJ15	LSM10
ICAM1	KCNK3	LSM2
IDH2	KCTD11	LSM4
IDH3G	KDELR1	LSM5
IER2	KEAP1	LSM7
IFI27L2	KIAA0141	LSR
IFITM1	KIAA2013	LSS
IFITM2	KIF22	LTBP2
IFRD2	KLHDC3	LTBP3
IGFBP2	KPNB1	LTBP4
IGFBP6	KRT18	LYPLA2
IGFBP7	KRT19	LZTR1
IGSF8	KRTCAP2	MACF1
IL32	LAMB1	MAEA
ILK	LAMC1	MAF1
ILVBL	LAMTOR1	MAGED1
IMPA2	LASP1	MAL
IMPDH1	LDLR	MALSU1
IMPDH2	LEMD2	MAN2B1
INF2	LGALS1	MAN2C1
INO80E	LIMD2	MANF
IPO4	LIMK1	MAP2K1
IRAK1	LINC01578	MAP2K2
IRF3	LITAF	MAP3K11
IRF9	LMF2	MAP7D1

MAPK13	MMP14	MXD4
MAPKAP1	MOB3A	MYADM
MAPKAPK2	MOSPD3	MYBL2
MAPKAPK3	MPC2	MYDGF
MARCH2	MPDU1	MYL6
MARS	MPG	MYL6B
MARVELD1	MPRIP	MYO1C
MAZ	MPST	MYOF
MBD3	MRPL11	MZT2A
MBOAT7	MRPL12	MZT2B
MCM4	MRPL14	NAA10
MCM5	MRPL17	NACC1
MCM7	MRPL2	NADSYN1
MCRS1	MRPL21	NAGLU
MCTS1	MRPL23	NANS
MDH2	MRPL28	NAP1L1
MDK	MRPL4	NAPA
MED25	MRPL52	NARF
METRNL	MRPS11	NBL1
MEX3D	MRPS16	NCLN
MFAP2	MRPS18A	NCS1
MFSD10	MRPS6	NCSTN
MFSD12	MRTO4	NDUFA1
MGAT4B	MT1F	NDUFA10
MGLL	MT1G	NDUFA11
MGMT	MTA1	NDUFA13
MGST3	MTA2	NDUFA3
MICALL1	MT-ATP6	NDUFA7
MIF	MTATP6P1	NDUFA8
MINOS1	MTCH1	NDUFB1
MIR210HG	MTCH2	NDUFB10
MKNK2	MT-CO2	NDUFB11
MLEC	MTG1	NDUFB2
MLF2	MVD	NDUFB3
MLPH	MVK	NDUFB7
MMAB	MVP	NDUFB8

NDUFB9	NT5E	PAX8
NDUFC2	NTMT1	PCBD1
NDUFS5	NUBP2	PCBP2
NDUFS6	NUDC	PCBP4
NDUFS8	NUDCD3	PCCB
NDUFV1	NUDT1	PCDHGC3
NEDD8	NUDT14	PCK2
NEFL	NUDT16L1	PCYT2
NEK6	NUDT22	PDAP1
NELFB	NUTF2	PDCD2
NELFCD	NXN	PDGFB
NENF	OAZ1	PDIA4
NEU1	OAZ2	PDLIM4
NF2	OBSL1	PDLIM7
NFE2L1	OCIAD2	PDXK
NHP2	OGDH	PDZK1IP1
NHP2P1	ORAI2	PEF1
NIPSNAP1	ORAI3	PEMT
NKIRAS2	ORMDL3	PEPD
NME1	OXLD1	PEX10
NME2	P3H3	PFDN2
NME2P1	P3H4	PFDN5
NME4	P4HB	PFDN6
NMT1	PA2G4	PFKP
NNMT	PA2G4P4	PFN1
NOC2L	PABPC1	PFN1P1
NOMO2	PABPC4	PFN2
NOSIP	PABPN1	PGAM5
NPDC1	PACS1	PGD
NPLOC4	PACS2	PGLS
NPM3	PADI2	PGM1
NR2F6	PAFAH1B3	PHB
NRBP1	PAM	PHB2
NRM	PARP10	PHC2
NRSN2	PARVA	PHF19
NT5DC2	PARVB	PHF23

PHF5A	POLD4	PRR13
PHGDH	POLDIP3	PRRC2A
PHLDA2	POLE4	PRRC2B
PHPT1	POLR1D	PSENE1
PIEZO1	POLR2A	PSMA7
PIGQ	POLR2E	PSMB10
PIGT	POLR2J	PSMB3
PIH1D1	POMGNT1	PSMB4
PIK3R2	POMP	PSMB6
PIN1	POP7	PSMC3
PITPNA	PPDPF	PSMC4
PITPNM1	PPIB	PSMD13
PKM	PPP1CA	PSMD2
PKN1	PPP1R11	PSMD3
PLA2G16	PPP1R13L	PSMD8
PLAT	PPP1R14B	PSME1
PLAU	PPP1R14BP3	PSME3
PLAUR	PPP2R1A	PSMG3
PLCD3	PPP2R4	PSPH
PLEC	PPP2R5D	PTBP1
PLEKHG3	PPP4C	PTGES2
PLEKHJ1	PPP5C	PTGES3
PLGRKT	PPP6R1	PTGES3P1
PLK1	PQBP1	PTMS
PLOD3	PQLC1	PTOV1
PLP2	PRDX2	PTPMT1
PLPP2	PRDX5	PTPRF
PLPP4	PREB	PTPRU
PLTP	PRELID1	PUF60
PLXNB1	PRKACA	PVR
PMM1	PRKCDBP	PVRL2
PMPCA	PRKCSH	PVT1
PMVK	PRMT1	PXN
PNKP	PRMT2	PYCARD
PNP	PROSER2	PYCR2
PNPLA6	PRPF19	QARS

QPRT	RNF167	RP11-69L16.5
R3HDM4	RNF181	RP11-761N21.2
RAB1B	RNF187	RP11-778D9.4
RAB34	RNF220	RP11-796G6.1
RAB35	RNF26	RP11-864N7.2
RAB5C	RNF5	RP11-982M15.2
RAB8A	RNF5P1	RP1-278E11.3
RABAC1	RNH1	RP13-608F4.5
RABL6	RNPEP	RP3-340B19.2
RAD23A	RNPEPL1	RP3-486I3.4
RALY	RNPS1	RP5-827C21.1
RANBP3	RNPS1P1	RPL10
RANGAP1	ROMO1	RPL12P12
RARA	RP11-112J1.1	RPL12P16
RASSF7	RP11-12M9.3	RPL12P4
RBCK1	RP11-170M17.2	RPL13
RBM14	RP11-175B9.3	RPL13A
RBM4	RP11-252P18.1	RPL13AP25
RBM42	RP11-270C12.3	RPL13AP5
RCC2	RP11-289I10.2	RPL13AP6
REC8	RP11-290L1.3	RPL13AP7
REEP5	RP11-333E13.2	RPL13P12
RELA	RP11-343C2.11	RPL15
RER1	RP11-365O16.1	RPL15P3
RERE	RP11-36C20.1	RPL17
RGL2	RP11-371A22.1	RPL18
RGS3	RP11-400N13.3	RPL18A
RHBDF2	RP11-425L10.1	RPL18AP3
RHOA	RP11-466H18.1	RPL21P119
RHOC	RP11-475C16.1	RPL21P75
RHOF	RP11-478C6.4	RPL22L1
RNASEH2A	RP11-492M23.2	RPL23
RNASEK	RP11-51O6.1	RPL24P4
RNF10	RP11-543P15.1	RPL26
RNF121	RP11-572P18.1	RPL26P19
RNF126	RP1-159A19.3	RPL27

RPL27A	RPS11	RPSAP12
RPL28	RPS13	RPSAP15
RPL3	RPS14	RPSAP18
RPL30	RPS15	RPSAP19
RPL31	RPS15A	RPSAP54
RPL31P63	RPS15AP1	RPSAP58
RPL32	RPS15AP24	RRAS
RPL34	RPS16	RRP7A
RPL34P18	RPS17	RTKN
RPL35	RPS18P12	RUSC1
RPL35A	RPS18P9	RUVBL2
RPL35P2	RPS19	S100A10
RPL35P5	RPS2	S100A11
RPL37	RPS20	S100A13
RPL37A	RPS20P14	S100A16
RPL37P2	RPS21	S100A2
RPL37P23	RPS21P4	S100A6
RPL38	RPS23	SAE1
RPL39	RPS23P8	SAMD1
RPL39P3	RPS27	SAMD4B
RPL3P4	RPS27A	SAP30BP
RPL7A	RPS28P7	SAT2
RPL7AP30	RPS29	SBF1
RPL7AP6	RPS2P46	SC22CB-1E7.1
RPL7AP66	RPS2P5	SCAF1
RPL8	RPS2P55	SCAMP2
RPL9P7	RPS3	SCAMP3
RPL9P9	RPS3AP47	SCAMP4
RPLP0	RPS3AP6	SCARB1
RPLP0P6	RPS5	SCO2
RPLP1	RPS6KA4	SCRIB
RPLP2	RPS7	SCYL1
RPP21	RPS7P1	SDC1
RPS10	RPS7P11	SDHA
RPS10-NUDT3	RPS9	SEC61G
RPS10P3	RPSA	SELK

SEMA7A	SIRPB1	SMIM12
SENP3	SIVA1	SMOX
SEPN1	SLC10A3	SMTN
SEPT2P1	SLC12A4	SMUG1
SEPT9	SLC16A3	SND1
SEPW1	SLC1A5	SNHG5
SERF2	SLC25A1	SNHG6
SERP1	SLC25A10	SNHG8
SERPINA1	SLC25A11	SNRNP25
SERPINB6	SLC25A23	SNRNP70
SERPINH1	SLC25A39	SNRPA
SESN2	SLC25A6	SNRPB
SF1	SLC25A6	SNRPD2
SF3A1	SLC29A1	SNRPEP4
SF3A2	SLC2A4RG	SNRPF
SF3B2	SLC35A2	SNRPFP1
SF3B3	SLC35B2	SNRPG
SF3B4	SLC35C2	SNRPGP10
SF3B5	SLC35F6	SNRPGP15
SFN	SLC37A4	SNRPN
SFXN3	SLC39A1	SNX17
SGTA	SLC39A13	SNX8
SH3BP2	SLC39A4	SORBS3
SH3GL1	SLC44A2	SPAG7
SH3GLB2	SLC4A2	SPINT1
SHARPIN	SLC50A1	SPINT2
SHISA5	SLC52A2	SPNS2
SHKBP1	SLC6A6	SPTAN1
SHMT1	SLC7A5	SPTBN1
SHMT2	SLCO4A1	SQRDL
SIGIRR	SLIRP	SQSTM1
SIGLEC15	SMAGP	SREBF1
SIGMAR1	SMARCB1	SREBF2
SIL1	SMARCD1	SRM
SIPA1	SMARCD2	SRPR
SIRPA	SMDT1	SSH3

SSNA1	TARBP2	TMEM129
SSR4	TBCB	TMEM134
SSU72	TBCD	TMEM141
STAP2	TBL3	TMEM147
STARD3	TBRG4	TMEM14C
STEAP3	TCEB2	TMEM160
STIM1	TCF25	TMEM18
STIP1	TCF3	TMEM184B
STK11	TCIRG1	TMEM189
STMN3	TCP1	TMEM205
STOML2	TECR	TMEM256
STRA13	TECRP1	TMEM256-PLSCR3
STRN4	TFPI2	TMEM259
STUB1	TGFB1	TMEM51
STX10	TGIF1	TMEM54
STXBP2	TGM2	TMEM63B
STYXL1	THAP4	TMEM8A
SUB1	THOC6	TMEM9
SUMF2	THOP1	TMSB4XP8
SUMO3	TIMM10	TMUB1
SUN1	TIMM17B	TNFAIP2
SUN2	TIMM50	TNFRSF10B
SURF1	TIMP2	TNFRSF12A
SURF4	TINAGL1	TNFRSF6B
SYDE1	TK1	TNIP1
SYMPK	TKFC	TNKS1BP1
SYNGR2	TKT	TOLLIP
TACC3	TLDC1	TOMM40
TADA3	TM4SF1	TOMM5
TAF10	TM7SF2	TOMM7
TAF15	TMED1	TP53
TAF6	TMED3	TP53I13
TAGLN	TMEM101	TPD52L2
TAGLN2	TMEM11	TPGS2
TAGLN2P1	TMEM120A	TPM2
TAPBP	TMEM127	TRABD

TRAF4	TUBGCP2	USP22
TRAF7	TUFM	USP5
TRAP1	TUSC2	VAMP5
TRAPPC5	TWF2	VARS
TRIB3	TXN	VASP
TRIM28	TXNL4A	VAT1
TRIM8	TYMP	VCAN
TRIOBP	TYMS	VCP
TRMT112	U2AF1	VEGFB
TRMT2A	U2AF1L5	VPS25
TRNP1	U2AF2	VPS51
TRPT1	UBA1	VPS72
TSFM	UBA52	WARS
TSKU	UBAC2	WASF2
TSPAN1	UBE2A	WBP1
TSPAN14	UBE2I	WBP2
TSPAN17	UBE2M	WDR18
TSPAN4	UBE2MP1	WDR34
TSPAN9	UBE2Q1	WDR45
TSPO	UBE2SP1	WDR54
TSR3	UBE2SP2	WDR74
TST	UBL5	WDR77
TSTA3	UBTD1	WIPI2
TSTD1	UBXN1	WWTR1
TTLL12	UCHL1	XBP1
TTYH3	UFD1L	YBX3
TUBA1A	UPP1	YIF1A
TUBA1B	UQCC2	YIF1B
TUBA1C	UQCR11	YKT6
TUBA4A	UQCRB	YWHAB
TUBB	UQCRC1	ZDHHC12
TUBB2B	UQCRQ	ZDHHC16
TUBB3	UROD	ZDHHC3
TUBB4B	USF1	ZDHHC5
TUBB6	USF2	ZDHHC7
TUBBP1	USMG5	ZDHHC8

ZFAND3
ZFAS1
ZFPL1
ZFYVE19
ZFYVE21
ZMAT5
ZNF358
ZNF511
ZNF581
ZNHIT1
ZSWIM8
ZYG

Common

AC016739.2	FARP1	LGALS1
ACAT2	FASN	LIMK1
ACOT7	FDFT1	LITAF
ACSS2	FDPS	LMNB2
AGRN	FKBP9	LOXL1
AHNAK	FLII	LRRC61
AIF1L	FLOT1	LRRN4
AKR1B1	FUS	LSR
ASF1B	FXVD2	LSS
ATIC	GALE	LTBP4
ATP2A2	GATAD2A	MARVELD1
ATXN2L	GNB1	MGLL
C11orf31	GUCD1	MGMT
C12orf75	H2AFY	MMAB
C7orf50	HMGA1	MMP14
CANX	HMGN1P38	MPC2
CAPN2	HMGN2	MT1F
CCND3	HNF1B	MTCH2
CDK16	HNRNPAB	MVD
CDK2AP2	HNRNPD	MYBL2
CHMP3	HNRNPH1	MYOF
CLDN4	HNRNPU	NAP1L1
CLU	HSP90B1	NBL1
CNIH4	HSPB8	NEK6
CRTAP	HSPD1	NFE2L1
CTA-276O3.4	HSPG2	NNMT
DHCR24	HYI	NRM
EBP	IDH2	NXN
EIF4G2	IMPA2	OCIAD2
ELF3	IMPDH2	PABPC1
ESYT1	ITGB1BP1	PABPC4
FADS1	JUND	PAM
FAM57A	KPNB1	PAX8
FAM65A	LAMC1	PDZK1IP1
	LDLR	PFKP
	LEMD2	PFN2

PGLS	TMEM184B
PGM1	TMEM256
PHGDH	TMEM54
PLEC	TNFRSF12A
PLPP2	TRIB3
POLR2A	TRNP1
PRDX5	UBAC2
PRKACA	UBE2A
PRRC2B	UBE2MP1
PTGES3	UBE2SP1
PTGES3P1	UBE2SP2
PTMS	UFD1L
PTPRF	VCP
RBCK1	WWTR1
RHOF	YWHAB
RP11-252P18.1	ZDHHC7
RP11-333E13.2	ZFAND3
RP11-69L16.5	ZFYVE21
RP11-982M15.2	
RPL12P4	
RPS21P4	
RRAS	
S100A2	
SEPT9	
SHMT1	
SLCO4A1	
SNHG6	
SPTAN1	
SPTBN1	
SREBF2	
TAPBP	
TBCD	
TFPI2	
TGIF1	
THOP1	
TIMP2	

Supplementary Table 3.

gene name	Species		
Col3a1	mouse	Forward	AGCCTTCTACACCTGCTCCT
		Reverse	CGGATAGCCACCCATTCCTC
Timp2	mouse	Forward	GACTTCATTGTGCCCTGGGA
		Reverse	TGGTGCCCATTGATGCTCTT
β Actin	mouse	Forward	TGAGGTACTAGCCACGAGAGAG
		Reverse	ACACCCGCCACCAGGTAAGCA
TIMP2	human	Forward	TCCTCTTGATAGGGTTGCCA
		Reverse	CGTTTTGCAATGCAGATGTA
β ACTB	human	Forward	AACTGGTCTCAAGTCAGTGTACAGG
		Reverse	TCCCCCAACTTGAGATGTATGAAG