

Integrated Metabolomics and Network Pharmacology to Decipher the Antioxidant and Anti-inflammatory Potential of *Gymnostachyum febrifugum* (Benth) and an *In Vitro* Validation

Spandana K J¹, Wilson Joel Rodrigues², Chandrashekar K R³ & Bhagya N^{1*}

¹Yenepoya Research Centre, Yenepoya Deemed to be University, Mangalore 575 018, Karnataka, India

²Department of Biochemistry, JSS Academy of Higher Education and Research, Shivarathreeswara Nagara, Mysuru 570 015, Karnataka, India

³Yenepoya Pharmacy and Ayush Research Centre (YEN PARC), Yenepoya (Deemed to be University), Deralakatte, Mangalore, Karnataka 575 018, India

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Supplementary Table S1 — Target proteins of antioxidant metabolites and antioxidant genes

METABOLITE TARGETS	ANTIOXIDANT GENES	COMMON TARGETS	METABOLITE TARGETS	ANTIOXIDANT GENES	COMMON TARGETS	METABOLITE TARGETS	ANTIOXIDANT GENES	COMMON TARGETS
10	AARS2	ACADM	AGXT	NFKB1	GSTP1	ACK2	ACTR8	PPARA
(+)-bornyl diphosphate synthase, chloroplastic	ABCD1	ADH5	AKR1B1	NFS1	HADHA	Acox1	ADH5	PPARG
1-pyrroline-5-carboxylate dehydrogenase	ABHD10	ALB	AKR1C1	NLRC4	HMOX1	ACP3	ADIPOQ	PTGS1
3-alpha-(or 20-beta)-hydroxysteroid dehydrogenase	ABHD5	ALDH2	AKR1C2	NLRP3	HNMT	ADAM17	ADIPOR1	PTPN22
AAT	ACAD9	APOA2	AKR1C3	NOS1	HSP90AA1	ADAM33	ADPRS	RHO
aaxB	ACADL	APP	AKR1C3,	NOS1AP	MAOA	ADAMTS17	AGT	SOD2
ABCC6	ACADM	BLVRB	AKR1C5	NOS2	MAOB	ADF1	AGTR1	TRAPPC6A
ABL	ACADS	CARS2	Akr1c9	NOS3	MAPK1	ADH1B	AIFM1	TRDMT1
ABL1	ACADVL	CASP3	AKT2	NOSIP	MAPK14	ADH1C	AKT1	TRI5
ABO	ACE	CYP2C9	ALB	NOSTRIN	MAPK8	ADH5	ALB	trx-1
ACAA1	ACKR1	CYP3A4	Alcohol dehydrogenase	NOX1	MT-CO1	ADK	ALDH2	trxA
ACADM	ACOX1	ELAC2	Alcohol dehydrogenase E chain	NOX4	NOS3	AQP1	ANKZF1	Trypsin inhibitor 1
ache	ACOX2	ESRRG	ALDH2	NQO1	NR1I2	AR	APEX1	TPR
Acidic phospholipase A2 1	ACTA1	GSR	ALOX15	NR1I2	PARP1	AR,	APOA1	TRAPPC3

Acidic phospholipase A2 3	ACTN2	GSTM1	ALOX15B	NSUN3	PDE5A	Archaerhodopsin -1	APOA2
Basic phospholipase A2	ATP5MC3		alpha-LP	NUBPL		argI	APOE
Basic phospholipase A2 homolog MT1	ATR		alpha-Man-IIa	NUDT1		Ari1	APP
Basic phospholipase A2 homolog piratoxin-1	BAX		alsB	OGG1		aroL	APPL1
Basic phospholipase A2 KPA2	BCL2		AMD1	OLR1		atpE	ARG2
Basic phospholipase A2 vipoxin B chain	BDNF-AS		AMT	OSER1		AURKA	ARID1A
Basic phospholipase A2 VRV-PL-VIIIa	BHLHE40		Anti-H(O) lectin 1	OSGEPL1		azu	ARV1
BCAT2	BLVRB		ANXA5	OSGIN1		BACE1	ATP5F1A
BCHE	C1QBP		AOC2	OSGIN2		BACE2	ATP5F1B
BCL2L1	C2orf69		APOA2	OXR1		BMP2	ATP5IF1
Beta-elicitin cryptogein	CAMP		APOD	OXSRI		bop	MSH2
CASP7	CARS2		Apolipoprotein A-II	P4HB		bphC	MSRA
cat3	CASP10		APP	PARK7		BPI	MSRB1
CBL4	CASP3		BHMT	PARP1		BRAF	MSRB2
CCL24	CAT		Bifunctional dihydrofolate reductase-thymidylate synthase	PDCD1		BST1	MT-ATP6
CCNA	CAV1		Bilin-binding protein	PDE5A		btuB	MT-CO1
CCNA2	CCL2		CUTA	PDHB		CA1	MT-CYB
bioD	CD36		cyp102A1	PDIA5		CA2	MTFMT
bioD1	CDC25A		CYP19A1	PERM1		Caffeic acid 3-O-methyltransferase	MTLN
BIRC7	CERNA3		CYP2C8	PGD		CALM	MTO1
bla	CEROX1		CYP2C9	PGR-AS1		CALM1	MTOR
BLVRB	CFH		RXRA	PIK3CA		CALML5	MTRFR
SULT1E1	CFHR1		RXRBR	PINK1		camC	MUC1

SULT2A1	CFHR3	S100A9	PIP5K1A	Carboxymuconolactone decarboxylase-like domain-containing protein	MUTYH
SULT2B1	CISH	SAMHD1	PLA2G7	CARS2	NARS2
Trypsin-1	COA6	Scgbl1a1	PNKD	CASP1	NAXE
TSHR	COA7	SDH1	PNPT1	CASP3	NCF2
TTPA	COL8A2	sdhA	POLG	CUT1	NDUFAF3
TTR	COQ10B	SYK	POLR1C	CCP1	NDUFS1
TYMS	COQ8A	TEK	POLRMT	CD1A	NDUFS2
UCK2	COX5A	tesA	PON1	CD4	NDUFS4
UMOD	CP	TGFB2	POR	CDA	NDUFS8
USH1C	CPOX	TGFBR1	PPARA	PCM5	NDUFV1
uvrB	CPT1A	TGM3	PPARG	PCTP	NEB
VAOA	CPT2	TGM6	PPARGC1A	PLK1	NEUROD1
VDR	CR1	Thiaminase-1	PRDM16	PLTP	NFE2L2
WARS1	CRLS1	thiE	PRDX1	PNMT	MRPL12
WAS	CRP	thiM	PRDX2	POT1	MRPL19
XIAP	CRTC2	THRA	PRDX3	PPARA	MRPL20
XPNPEP1	CS	THRB	PRDX5	PPARD	MRPL24
xylA	CTH	THUMP domain-containing protein	PRDX6	PPARG	MRPL3
YARS1	CTLA4	thyA	PRKAG3	PPIA	MRPL30
yecD	CTNNB1	THYMS	MRPL35	PPP1CC	SLC19A3
yhaI	CXCL8	TIMM8A	MRPL37	PPP5C	SLC25A20
ZAP70	CYBA	TKFC	MRPL44	PPT1	SLC25A24
cdd	CYBB	TNNC1	MRPL47	Prkaca	SLC25A26
CDK2	CYCS	TNNC1,	MRPL53	PRKCQ	SLC2A2
CDK6	PRKN	CYP505	MRPL55	PROCR	SLC33A1
CELA1	PRORP	cyp51	MRPL9	PRSS1	SLC6A6
CELA2A	PRORP-PSMA6	Cytotoxin 3	MRPS14	prx2	SMAD5-AS1
CES1	PTCD3	DCK	MRPS15	PSAP	SMYD1
CETP	PTGS1	DCPS	MRPS16	PTER	SNCA
cgt	PTGS2	deoD	MRPS2	PTGS1	SOD1
CH2	PTPN22	DHFR	MRPS21	Ptgs2	SOD2
CHEK1	PYCR2	DHODH	MRPS22	PTPN1	SOD2-OT1
Chemosensory protein	QRSL1	DPEP1	MRPS23	PTPN11	SOD3
CHP1	RAB33A	DPP4	MRPS25	PTPN22	SPATS2L
CHS2	RAB5A	DPP4,	MRPS28	sop2	SUCLG1
Chymotrypsinogen A	RANBP2	dps	MRPS34	SORD	TAMM41
cinA	RHO	dps2	MRPS5	speB	TARS2

cki1	RMND1	DSTN	MRPS7	SPINK1	LOC130006506
clcA	RNF7	DTYMK	MRPS9	SPP1	LOC130010127
CMA1	RYR1	DUSP6	SESN2	SRC	LOC130058183
cobT	SAMMSON	DUSP7	SFXN4	SRK	LOC130058184
COMT	SCP2	DUT	SGCB	SSA_0458	LRPPRC
CPA1	SDHB	E	SHC1	sspA	
CRABP2	SDHC	EGFR	SI	STE	
CRAT	SELE	EIF4E	SIRT1	Streptavidin	
Crot	SELENOI	ELAC2	SLC16A1	STS	
Crustacyanin-A1 subunit	SELENOK	ELANE	TEFM	PLA2-ALPHA,	UGT1A1
CSK	SELENON	ELL2	TF	PLA2G1B	VAR51
CSNK2A1	SERAC1	EPHB4	TGFB1	PLA2G2A	VAR52
CSNK2A3	SERTAD2	Ephx2	TIA1	PLA2G4B	VCAM1
CTNNA1	CYP2C19	ERBB4	TIMM22	PLA2G4C	VEGFA
CTNNAL1	CYP2C9	ERN1	TKT	pIaA	VHL
CTPS2	CYP2D6	eryF	TLR4	PYGL	WARS2
CTRB1	CYP2E1	ESR1	TMX2-CTNND1	PYGM	XDH
CTSB	CYP3A4	Esr2	TNF	pyrG	ICAM1
CTSF	CYP4F3	ESRRA	TOMM70	qacR	IDH1
CTSG	DBT	ESRRG	TP53	RAD51	IFNG
CTSK	DCTN1	Esrrg,	TP73	radA	IGF2BP2
CTSS	DDAH1	F10	TREX1	RAF1	IL10
CTTN	DDAH2	F11	TRIT1	RARA	IL1B
EFT1	DES	F2	TRMT10C	RARB	IL1RL1
EGF	DGUOK	F7	TRMT5	RARG	IL1RN
FABP6	DHCR24	fabB	TSMF	RBP1	IL6
FABP7	DNAJB4	fabI	TTLL4	RBP4	IMMT
fabZ	DNAJC9-AS1	Fabp2	TUBA3D	RDM1	INPP4A
Fatty acid-binding protein TM_1468	DUSP2	FABP3	TUFM	REN	INS
fecA	DYNLL1	Fabp4	TXN	RFK	IRS1
fecB,	EARS2	FABP5	TXN2	RHO	ISG15
FECH	ECHS1	CHIT1	TXNDC12	Riboflavin biosynthesis protein	JUN
FGFR1	EDN1	HDAC7	TXNIP	RORA	KDM1A
FGFR2	EHHADH	HDAC8	TXNRD1	rplA	KEAP1
fhuA	ELAC2	HMGCR	LYRM4	MAM2	KNG1
fhuD	EME2	HMOX1	LYRM4-AS1	MAN2A2	KRIT1
FKBP1A	EPHX1	Hnf4a	MAOA	NR1H2	LINC01672
FKBP1B	ERFE	HNF4G	MAOB	NR1H3	LOC101928525
FKBP3	ERO1B	HNL	MAP3K5	NR1H4	LOC111365141
Fnta	ESRRG	HNMT	MAPK1	NR1I2	LOC112163529

FOLH1	ETFA	HOM6	MAPK14	NR1I3	LOC126806484
frdA	ETFDH	HPGDS	MAPK3	NR3C1	LOC126859565
fir	F5	Hsd11b1	MAPK8	NR3C2	LOC126859646
gag	FAAH	HSD11B1L	MARS2	nspA	UCP3
gag-pol	FABP1	HSD17B1	MB	NT5M	
GAPG	FARS2	Hsd17b10	MECR	nudC	
GART	FASTKD2	HSD17B11	MEF2D	NUDT13	
GC	FCGR2A	HSD17B2	MFN2	OAT	
GCK	FCGR2B	HSD3B1	MICOS13	OBP2A	
gcvT	FH	HSP90AA1	MIEF2	ompA	
GDF11	FMO1	HSP90AB1	MIPEP	ompF	
GDI1	FMO2	HSPA8	MIR200A	ompT	
Genome polyprotein	FMO3	Hydrolase	MPO	opd	
GFP-like fluorescent chromoprotein FP538	FMO4	IGF1	MPV17	opmA	
Gfra1	FMO5	IGF1R	TYR	ORF1	
glmS	FOXL2	ligp1	UBAP2L	OTC	
GLO1	FOXO1	IL2	UCP2	pagP	
Glyceraldehyde-3-phosphate dehydrogenase, glycosomal	FOXO3	IMPDH		pagP,	
GM2A	FXN	IMPDH2		Non-specific lipid-transfer protein	
Gp-9	G6PD	MAOA		Nos2	
GPD	GAPDH	MAOB		NOS3	
GPD1	GATB	map		Nqo1	
GPI	GATC	MAP2K1		NQO2	
GRB2	GBA1	MAP3K7		NR113	
GRL	GBP1	MAPK1		pdaD	
GSK3B	GBP2	MAPK10		PDE3B	
GSR	GBP7	MAPK14		PDE4B	
GSTA1	GCH1	MAPK8		PDE4D	
GSTM1	GCLM	MAPKAPK2		PDE5	
GSTP1	GDAP2	mbtK		PDE5A	
GSTT2B	GFM1	mdlA		PDK2	
GUCY2F	GFM2	MDM2		PDPK1	
HADHA	GLMP	mdtF		PENT	
HCK	GLRX	MET		pepP	
	GLRX2	METAP1		Peptide deformylase	
INSR	GPD2	METAP2		PGF	
IRE1	GPR37L1	METAP2,		PGR	

IRGC	GPX1	METTL16	Pheromone-binding protein
ITGA9	GPX3	MFB2	php
ITGAL	GPX7	mmaA2	PIK3CG
ITK	GSR	MME	PIK3R1
IVD	GSTM1	MMP1	PIM1
JAK2	GSTP1	MMP12	PAK5
JAK3	GSTT1	MMP13	PARP1
KDR	GTPBP3	MMP2	PCK1
KIF11	GYG1	MMP3	PIM2
KIF11,	GYPC	MMP8	pip
KIT	HADH	MMP9	PLA1A
KK1_035154	HADHA	MNPEP	
KSI	HADHB	MRRF	
LCK	HBB	mspA	
LCN2	HBG2	MTAP	
Len5	HCRTR1	MT-CO1	
LCN6,	HIF1A	MTHFD1	
LGB	HIGD1A	MT-RNR1	
limA	HMCES	Mup1	
LIP	HMCN1	Mup2	
Lipase B	HMOX1	Mup20	
Lipid binding protein	HNMT	Mup6	
LOC108669824	HNRNPR	murD	
lpxC	HSD17B4	mxjM	
LSS	HSP90AA1	mxjM,	
LTA4H	HSPA4	nalP	
LTP1	HTRA2	nft-1	
LYN	IARS2	NLRP7	
lytA		NMT1	
LYZ		NMT2	

Supplementary Table S2 — Target proteins of anti-inflammatory metabolites and anti-inflammatory genes

METABOLITE TARGETS	ANTI-INFLAMMATORY GENES	COMMON TARGETS	METABOLITE TARGETS	ANTI-INFLAMMATORY GENES	COMMON TARGETS	METABOLITE TARGETS	ANTI-INFLAMMATORY GENES
10	NLRP3	ALB	AKR1C1	LINC02605	PARP1	AKR1B1	MIR21
Cflip	IL6	CASP1	AKR1C2	HLA-B	PDE5A	AQP1	FOXP3
Kras,	TNF	CD4	AKR1C3	IL1RN	PIK3CG	AR	CERNA3
aaxB	CRP	CTSK	AKR1C3,	TNFRSF1A	PLA2G2A	AR,	ADIPOQ
ABCC6	IL10	DPP4	AKR1C5	ALB	PPARA	ARG1	MROCK1
ABL1	TLR4	EGFR	Akr1c9	ELANE	PPARG	arg1	NFKBIA
ABO	IL1B	ELANE	AKT2	HMGB1	PROCR	Ari1	MMP1
ACAA1	CXCL8	F2	ALB	IL1A	PTPN1	aroL	RNASE3
ACADM	NOD2	FAS	ALDH2	PRTN3	PTPN22	atpE	TNFAIP3
ache	SYK	GSTM1	ALOX15	BDNF-AS	S100A9	AURKA	ILRUN
ACK2	CCL2	HMOX1	ALOX15B	IL18	SERPINA1	azu	RELA
Acox1	MEFV	HNMT	alpha-LP	ICAM1	SPINK1	BACE1	MIF
ACP3	TLR2	IL2	alpha-Man-IIa	H19	SPP1	BACE2	VCAM1
ADAM17	PTGS2	JAK2	alsB	SOD2-OT1	STS	BCAT2	IL5
ADAM33	NFKB1	LCK	AMD1	STAT3	SULT2B1	BCHE	IRAK1
ADAMTS17	IFNG	LCN2	AMT	MPO	SYK	BCL2L1	ITGAM
ADF1	IL17A	MAPK14	ANXA5	MIR146A	YARS1	BHMT	SELE
ADH1B	TGFB1	MMP1	AOC2	MIR155	SELP	bioD	MIR223
ADH1C	IL13	MMP2	APOA2	MMP9		bioD1	PPARG
ADH5	HLA-DRB1	MMP9	APOD	PTPN22		BIRC7	CCL11
ADK	IL4	MPO	Apolipoprotein A-II	FAS		bla	FASLG
AGXT	CTLA4	NR1H4	APP	LINC01672		BLVRB	IL2
CALM	STAT1		cgt	TMX2-CTNND1		BMP2	STAT4
CALM1	SAA1		CH2	LTA		bop	IL37
CALML5	MIR146B		CHEK1	ITGB2		bphC	TLR7
camC	CXCL10		CHIT1	JAK1		BRAF	IL23R
CASP1	CCR5		CHP1	S100A9		BRAF1	CCL5
CASP3	RIPK1		CHS2	MYD88		BST1	INS
CASP7	NOS2		cinA	AGER		btuB	TLR3
cat3	SMAD5-AS1		cki1	ADA2		CA1	IRF5
CBL4	PLG		clcA	LEP		CA2	CSF2
CBR1	IL1R1		CLPP	IL33		CTSF	CFD
CBS	CCR1		CMA1	CHI3L1		CTSG	TLR9
CCL24	CFTR		cobT	IL12A		CTSK	GUCA2B
CCNA2	SPP1		COMT	MIR125A		CTSS	TIE1
CCNT1	PGR-AS1		COX2	CD40LG		CTTN	MUTYH
CCP1	APOE		CPA1	NFE2L2		CUT1	RAD54L
CD1A	RETN		CRABP2	IFNGR1		CUTA	TAL1
CD4	OTULIN		CRAT	TP53		cyp102A1	MYSM1
CDA	STING1		Crot	MAPK14		CYP19A1	JUN
cdd	CASP1		CSK	CCL3		CYP2C8	IL12RB2
CDK2	PDCD1		CSNK2A1	KNG1		CYP2C9	WLS
CDK6	PSTPIP1		CSNK2A3	EGFR		CYP2F1	PTGER3
CELA1	IL10RA		CTNNA1	ALOX5		CYP3A4	ASB17
CELA2A	IKBKG		CTNNAL1	SERPINE1		CYP505	PTGFR
CES1	HMOX1		CTPS2	MAD1L1		cyp51	CCN1

CETP	C4A	CTRB1	IL22	DCK	GF11
CFB	AKT1	CTSB	PTX3	DCPS	F3
DUSP7	F2	deoD	TNFRSF14	Fabp4	S1PR1
DUT	S100A8	DHFR	TP73	FABP5	GSTM1
EFT1	CD4	DHODH	TNFRSF25	FABP6	CSF1
EGF	NLRP1	DPEP1	TNFRSF9	FABP7	CHIA
EGFR	TSLP	DPP4	PIK3CD	fabZ	RAP1A
EIF4E	FLG	DPP4,	MTOR	FAS	NRAS
ELANE	LTF	dps	TNFRSF8	fecA	IGSF3
ELL2	PIK3CG	dps2	TNFRSF1B	fecB,	REG4
EPHB4	HLA-DPB1	DSTN	PDPN	FECH	HJV
Ephx2	MIR150	DTYMK	CTRC	FGFR1	FCGR1A
ERBB4	SERPINA1	DUSP6	PLA2G2E	FGFR2	CTSK
ERG7	MALAT1	GDF11	PLA2G2A	fhuA	SETDB1
ERN1	CYBB	GDI1	PLA2G2F	fhuD	TNFAIP8L2
eryF	CARD8	Gfra1	PINK1	FKBP1A	SELENBP1
ESR1	MIR452	glmS	C1QB	FKBP1B	PSMB4
Esr2	IL2RA	GLO1	CNR2	FKBP3	RORC
ESRRA	IL10RB	GM2A	IL22RA1	Fnta	FLG2
ESRRG	C3	Gp-9	RUNX3	FOLH1	SPRR2A
Esrrg,	TNIP1	GPD	MATN1	frdA	SPRR2B
F10	CP	GPD1	CCDC28B	fr	S100A12
F11	IL12B	GPI	LCK	gag	IL6R
F2	CXCL1	GRB2	YARS1	gag-pol	ADAR
F7	MIR142	GSK3B	TRIM62	GAPG	MUC1
fabB	LCN2	GSR	ZC3H12A	GART	GBA1
fabI	ISG15	GSTA1	HPCAL4	GC	LMNA
Fabp2	TNFRSF4	GSTM1	MYCL	GCK	TMEM79
FABP3	C1QTNF12	GSTP1	CAP1	gcvT	GLMP
HNMT	CD1D	GSTT2B	FCGR2B	JAK2	SLC30A10
HOM6	AIM2	GUCY2F	DDR2	JAK3	TLR5
HPGDS	ACKR1	HADHA	F5	KDR	PARP1
HPN	FCER1A	HCK	SELL	KIF11	AGT
Hsd11b1	COPA	HDAC7	TNFSF4	KIF11,	EGLN1
HSD11B1L	NCSTN	HDAC8	RC3H1	KIT	TRIM58
HSD17B1	CD244	HMGCR	STX6	KK1_035154	LYPD8
Hsd17b10	NECTIN4	HMOX1	ARPC5	KSI	PXDN
HSD17B11	FCER1G	Hnf4a	HMCN1	LCK	CMPK2
HSD17B2	FCGR2A	HNF4G	PLA2G4A	LCN2	SLC5A6
HSD3B1	FCGR3A	HNL	KCNT2	Lcn5	MPV17
HSP90AA1	FCGR3B	MPO	CFH	LCN6,	FNDC4
HSP90AB1	NEURL3	MRRF	CFHR3	LGALS3	ALK
HSPA8	MAP4K4	mSPA	CFHR1	LGB	NLRC4
IGF1	IL1RL1	MTAP	NR5A2	limA	EIF2AK2
IGF1R	BUB1	MT-CO1	ZNF281	LIP	SIX2
Igpl	MIR4435-2HG	MTHFD1	ADIPOR1	LOC108669824	TTC7A
IL2	MERTK	MT-RNR1	ADORA1	lpxC	EPCAM
IMPDH	IL36G	Mup1	CNTN2	LSS	CCDC88A
IMPDH2	IL36A	Mup2	IKBKE	LTA4H	GKN2
INSR	IL36B	Mup20	IL24	LTP1	DYSF
IRE1	IL36RN	Mup6	CD55	LYN	MTHFD2
IRGC	MARCO	murD	CR2	lytA	REG1A
ITGA9	PROC	mxIM	CR1	LYZ	VAMP8
ITGAL	CXCR4	mxIM,	CD46	MAN2A2	CD8A

ITK	HNMT	nalP	LAMB3	MAOA	FABP1
IVD	NR4A2	NFKB	TRAF5	MAOB	STARD7
map	GPD2	nft-1	GULP1	NR1I2	APOA1
MAP2K1	ACVR1	NLRP7	C2orf69	NR1I3	TIMP1
MAP3K7	ITGB6	NMT2	CASP10	NR3C1	PLAUR
MAPK1	DPP4	NO	CASP8	NR3C2	LTB4R
MAPK10	GCG	Nos2	ICOS	nspA	TNFSF15
MAPK14	IFIH1	NOS3	BARD1	NT5M	PROCR
MAPK8	SCN1A	Nqo1	CXCR2	nudC	IDO1
MAPKAPK2	SCN9A	NQO2	BDNF	NUDT13	BDKRB1
MAPKAPK2	G6PC2	NR1H2	TRPV1	OAT	TFRC
mbtK	TTN	NR1H3	PTGES	OBP2A	IL17RA
mdIA	NEUROD1	NR1H4	FGF2	ompA	TGFA
MDM2	ITGAV	MMP9	TAC1	ompF	TF
MET	SULT2B1	PDE4B	BDKRB2	ompT	MVK
METAP1	GATA3	PDE4D	NGF	opd	IRF7
METAP2	JAK2	PDE5A	PTGER4	opmA	ZFP36
METAP2,	GALNS	PDK2	CALCA	ORF1	MIR217
METTL16	SLC22A5	PDPK1	F2RL1	OTC	TBX21
MFB2	EGR1	pepP	VEGFA	pagP	CXCL2
mmaA2	ATP7B	PGF	SOD1	pagP,	MIR22
MME	PLAA	PGR	UCN	PAK5	TSC2
MMP1	CCL4	php	SCGB1A1	PARP1	ASIC2
MMP12	COL2A1	PI3K/AKT	TNFRSF11B	PCK1	ANGPT1
MMP13	EFNB1	PIK3CG	MMP2	PCM5	MIR34A
MMP2	EDN1	PIK3R1	F2R	PCTP	IFNL3
MMP3	ASIC3	PIM1	CXCR3	pdaD	ASIC1
MMP8	OXT	PIM2	AHR	PDE3B	PPARA
	CCK	PLA1A			
PPARD	GAL	PLA2-ALPHA,	MASP2	RARB	TACR1
PPARG	KYNU	PLA2G10	DUSP10	RARG	KCNK2
PPIA	TRPA1	PLA2G1B	CLN6	RBP1	
PPP1CC	CRHR2	PLA2G2A	UCN3	RBP4	
PPP5C	ABCB4	PLA2G4B	CHRNA2	RDM1	
PPT1	EIF4EBP1	PLA2G4C	CHRNA4	REN	
Prkaca	PTPN1	pIdA	TREX1	RFK	
PRKCQ	SH2B3	PLK1	SELENOS	RHO	
PROCR	NPPB	PNMT	CD3E	RORA	
PRSS1	NR1H4	POT1	TLR6	rplA	
prx2	EPO	PPAR	ANXA1	RXRA	
PSAP	WDR1	PPARA	IL15	RXRB	
PTER	ACSL4	SHMT1	F11R	S100A9	
PTGS1	CDK5	SLC9C1	KLK1	SAMHD1	
Ptgs2	PDE5A	SOD2	APOA4	Scgb1a1	
PTPN1	A2M	sop2	ABCB1	SDH1	
PTPN11	SERPINA3	SORD	ACSL6	sdhA	
PTPN22	CX3CR1	speB	MUC2	SDS	
PYCR1	PCSK1	SPINK1	AIF1	SEC14	
PYGL	CYP1A1	SPP1	NPY5R	SEC14L1	
PYGM	PCSK2	SRC	CAMK2A	SEC14L2	
pyrG	SDC1	SSA_0458	SPINK1	SEN7	
qacR	OPRM1	sspA	FGG	SERPINA1	
RAD51	NTRK2	STS	SERPINC1	SERPINA1,	
radA	ALOX5AP	SULT1E1	NPFF	SETD7	

RAF1	TACR3	SULT2A1	TFAM	SHBG
RARA	HP	SULT2B1	ACSL3	shc
SYK		TYMS		
TEK		UCK2		
tesA		UMOD		
TGFB2		USH1C		
TGFBR1		uvrB		
TGM3		VAOA		
TGM6		VDR		
thiE		WARS1		
thiM		WAS		
THRA		WNT		
thrB		XIAP		
thyA		XPNPEP1		
TIMM8A		xyIA		
TKFC		YARS1		
TNFalpha		yecD		
TNNC1		yhaI		
TNNC1,		ZAP70		
TPR				
TRAPPC3				
TRAPPC6A				
TRDMT1				
TRI5				
trx-1				
trxA				
TSHR				
TTPA				
TTR				
