

Supplementary Information File

**A Network Analysis of Chinese Medicine Lianhua-Qingwen Formula
to Identify its Main Effective Components**

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Table S1. Relationship between candidate components and targets

Candidate component	Target	Candidate component	Target
(+)-Pinoresinol- β -D-glucoside		Chrysophanol glucoside	F7
22-Acetoxyglycyrrhizin		Chrysophanol glucoside	PTGS2
22 β -Acetoxy licorice saponin			
B2/uralsaponin F		Chrysophanol glucoside	TOP2A
3,4-Dicaffeoylquinic acid		Chrysophanol glucoside	TOP2B
3,5-Dicaffeoylquinic acid		Citric acid	AKR1B1
			AKR1B1
Amygdalin	BAX	Citric acid	0
Amygdalin	CAT	Citric acid	CPB2
Amygdalin	MTOR	Citric acid	CTSD
Arctiin	ADRB2	Citric acid	F10
Arctiin	F10	Citric acid	GABRA1
	HSP90AA		
Arctiin	1	Citric acid	GRIA2
	HSP90AB		
Arctiin	1	Citric acid	GRIK2
Arctiin	KCNH2	Citric acid	GRIN1
Arctiin	MUC1	Citric acid	HDC
Arctiin	NCOA1	Citric acid	IGHG1
Arctiin	PTGS2	Citric acid	NOS1
Arctiin	PTON1	Citric acid	PIPNI
Arctiin	SCN5A	Citric acid	PLG
Chlorogenic acid	AKR1B1	Citric acid	PTGS2
Chlorogenic acid	CASP3	Citric acid	SRC
Chlorogenic acid	PTGS2	Citric acid	TPI1
Chlorogenic acid	TYR	Cryptochlorogenic acid	

Chlorogenic acid	UGT1A10	Emodin	ACTA2
Chlorogenic acid	UGT1A7	Emodin	BTK
Chlorogenic acid	UGT1A8	Emodin	CALM1
Chrysophanol	CALM1	Emodin	CASP3
Chrysophanol	GABRA1	Emodin	CDKN1A
Chrysophanol	HSP90AA 1	Emodin	CDKN1B
Chrysophanol	HSP90AB 1	Emodin	CDKN1C
Chrysophanol	IGHG1	Emodin	CSF2
Chrysophanol	NCOA2	Emodin	CYP1A1
Chrysophanol	PDE3A	Emodin	EGF
Chrysophanol	PIK3CG	Emodin	F10
Chrysophanol	PKIA	Emodin	F7
Chrysophanol	PRKACA	Emodin	HSP90A A1
Chrysophanol	PTGS1	Emodin	HSP90A B1
Chrysophanol	PTGS2	Emodin	IL1B
Chrysophanol	SCN5A	Emodin	MAOB
Chrysophanol glucoside	CALM1	Emodin	MMP1
Chrysophanol glucoside	F10	Emodin	MMP9
Emodin	NCOA1	Formononetin	NDUFB6
Emodin	NCOA2	Formononetin	NOS2
Emodin	PIK3CG	Formononetin	NOS3
Emodin	PPARG	Formononetin	PDE3A
Emodin	PRKACA	Formononetin	PIM1
Emodin	PRKCD	Formononetin	PPARG
Emodin	PRKCE	Formononetin	PPARG

Emodin	PTGS1	Formononetin	PPKACA
			PRKAR1
Emodin	PTGS2	Formononetin	A
Emodin	SLC2A1	Formononetin	PRSS1
Emodin	SLC2A4	Formononetin	PTGS1
Emodin	TGFB1	Formononetin	PTGS2
Emodin	TNF	Formononetin	RXRA
Emodin	TOP2A	Formononetin	SIRT1
Emodin	TOP2B	Forsythoside A	AKR1B1
Emodin	TP53	Forsythoside A	PRKCA
Emodin-8-O- glucoside	TOP2A	Forsythoside A	PRKCB
Emodin-8-O- glucoside	TOP2B	Forsythoside E	
Emodin-8-O- glucoside	PTGS2	Gallic acid	ABCB1
Formononetin	ACHE	Gallic acid	AKT1
Formononetin	ADRA1A	Gallic acid	ATM
Formononetin	ADRB2	Gallic acid	CASP3
Formononetin	AR	Gallic acid	CASP9
Formononetin	ATP5B	Gallic acid	CHUK
			CYP3A4
Formononetin	ATR	Gallic acid	3
Formononetin	CALM1	Gallic acid	EIF2AK3
Formononetin	CCNA2	Gallic acid	FASN
			HSP90A
Formononetin	CDK2	Gallic acid	A1
			HSP90A
Formononetin	CHRM1	Gallic acid	B1
Formononetin	DPP4	Gallic acid	JUN
Formononetin	ESR1	Gallic acid	MAOB
Formononetin	ESR2	Gallic acid	MGST1

Formononetin	F2	Gallic acid	MMP2
Formononetin	F2R	Gallic acid	MMP9
Formononetin	GSK3B	Gallic acid	PGR
Formononetin	HSD3B1	Gallic acid	PIK3CG
Formononetin	HSD3B2	Gallic acid	PRKCA
Formononetin	HSP90AA		
	1	Gallic acid	PTGS1
Formononetin	HSP90AB		
	1	Gallic acid	PTGS2
Formononetin	IL4	Gallic acid	PTPN1
Formononetin	JUN	Gallic acid	SULT1A
			1
Formononetin	LACTB	Gallic acid	TNFSF6
Formononetin	MAOB	Gallic acid	TOP2A
Formononetin	MAPK14	Gallic acid	TOP2B
Gallic acid	TP53	Isoliquiritigenin	AR
glucoside	ADPGK	Isoliquiritigenin	BAX
glucoside	AMY1C	Isoliquiritigenin	CA2
glucoside	B4GALT1	Isoliquiritigenin	CCNA2
glucoside	F7	Isoliquiritigenin	ESR1
glucoside	GABRA1	Isoliquiritigenin	ESR2
glucoside	GALM	Isoliquiritigenin	FOS
glucoside	GBA	Isoliquiritigenin	GABBR1
glucoside	GCK	Isoliquiritigenin	GSK3B
glucoside	HK1	Isoliquiritigenin	HSP90A
			A1
glucoside	IGHG1	Isoliquiritigenin	HSP90A
			B1
glucoside	LALBA	Isoliquiritigenin	JAK2

glucoside	LCT	Isoliquiritigenin	LACTB
glucoside	PTGS1	Isoliquiritigenin	MAOB
glucoside	PTGS2	Isoliquiritigenin	MAPK14
Glycycoumarin		Isoliquiritigenin	MT2A
Glycyrrhizic acid	HS2ST1	Isoliquiritigenin	NCOA2
Glycyrrhizic acid	HSD11B1	Isoliquiritigenin	NOS2
Glycyrrhizic acid	HSD11B2	Isoliquiritigenin	PIK3CG
Glycyrrhizic acid	HSD17B6	Isoliquiritigenin	PIM1
Glycyrrhizic acid	NR1I2	Isoliquiritigenin	PKIA
Glycyrrhizic acid	NR3C1	Isoliquiritigenin	PRKACA
Glycyrrhizic acid	PTGS1	Isoliquiritigenin	PTGS1
Glycyrrhizic acid	PTGS2	Isoliquiritigenin	PTGS2
Glycyrrhizic acid	PTPN2	Isoliquiritigenin	SELE
Glycyrrhizic acid	UST	Isoliquiritigenin	SLC2A1
Hesperidin	BAX	Isoliquiritigenin	TYR
Hesperidin	CASP3	Isoliquiritigenin	VCAM1
Hesperidin	ICAM1	Isoliquiritin	AKR1B1
Hesperidin	PTGS2	Kaempferol	ACHE
Hesperidin	TIAM2	Kaempferol	ADRA1B
Hesperidin	TP53	Kaempferol	AHR
Hyperin	PTGS2	Kaempferol	AHSA1
Hyperin	TOP2A	Kaempferol	AKR1C3
Hyperin	TOP2B	Kaempferol	ALOX5
Hyperin	Aaur_2198	Kaempferol	AR
Hyperin	ADRB2	Kaempferol	BAX
Hyperin	AR	Kaempferol	BCL2
Hyperin	BAX	Kaempferol	CALM1
Hyperin	CA2	Kaempferol	CASP3

Hyperin	CCNA2	Kaempferol	CHRM1
Hyperin	TOP2A	Kaempferol	CHRM2
Hyperin	TOP2B	Kaempferol	CYP1A1
Isoliquiritigenin	ADRB2	Kaempferol	CYP1A2
Kaempferol	CYP1B1	Kaempferol	VCAM1
Kaempferol	CYP3A4	Kaempferol-3-O-rutinoside	
Kaempferol	DIO1	Licorice saponin B2	
Kaempferol	DPP4	Licorice saponin E2	
Kaempferol	F2	Licorice saponin G2	
Kaempferol	F7	Licorice saponin H2	
Kaempferol	GABRA1	Liquiritigenin	ADRB2
Kaempferol	GABRA2	Liquiritigenin	ESR1
Kaempferol	GSTM1	Liquiritigenin	ESR2
			HSP90A
Kaempferol	GSTM2	Liquiritigenin	A1
			HSP90A
Kaempferol	GSTP1	Liquiritigenin	B1
Kaempferol	HAS2	Liquiritigenin	LACTB
Kaempferol	HMOX1	Liquiritigenin	MAOB
Kaempferol	HO1	Liquiritigenin	PIK3CG
	HSP90AA		
Kaempferol	1	Liquiritigenin	PKIA
	HSP90AB		
Kaempferol	1	Liquiritigenin	PPKACA
Kaempferol	ICAM1	Liquiritigenin	PTGS1
Kaempferol	IKBKB	Liquiritigenin	PTGS2
Kaempferol	IL1B	Liquiritigenin	RARA
Kaempferol	INSR	Liquiritin	
Kaempferol	MMP1	Liquiritin apioside	

Kaempferol	NCOA2	Loganic acid	CA2
Kaempferol	NOS2	Loganic acid	DPP4
Kaempferol	NOS3	Loganic acid	F2
Kaempferol	NR1I2	Loganic acid	GABRA1
Kaempferol	NR1I3	Loganic acid	GABRA6
Kaempferol	PGR	Loganic acid	GRID2
Kaempferol	PIK3CG	Loganic acid	GRM2
Kaempferol	PPARG	Loganic acid	PRSS1
Kaempferol	PRKACA	Loganic acid	PTGS2
Kaempferol	PRSS1	Loganin	CA2
Kaempferol	PSMD3	Loganin	DPP4
Kaempferol	PTGES	Loganin	F2
Kaempferol	PTGS1	Loganin	F2R
Kaempferol	PTGS2	Neochlorogenic acid	C4H
Kaempferol	RPS6KA3	Neochlorogenic acid	CYP98A 3
Kaempferol	<u>SELE</u>	Neochlorogenic acid	CYP98A 8
Kaempferol	SLC2A4	Neochlorogenic acid	PTGS2
Kaempferol	STAT1	Ononin	AR
Kaempferol	TJP2	Ononin	CALM1
Kaempferol	TNF	Ononin	DPP4
Kaempferol	TNFRSF1 1B	Ononin	ESR1
Kaempferol	TOP2A	Ononin	ESR2
Kaempferol	TOP2B	Ononin	F2
Ononin	F2R	Rutin	ALOX5
Ononin	F7	Rutin	C5AR1
Ononin	NOS2	Rutin	C5AR2

Ononin	PPARG	Rutin	CASP3
Ononin	PTGS2	Rutin	CAT
Phillyrin	CALM1	Rutin	CHRM5
	HSP90AA		
Phillyrin	1	Rutin	CTGF
Phillyrin	NCOA2	Rutin	CYP2C8
Phillyrin	PIK3CG	Rutin	CYP2C9
Phillyrin	PRKACA	Rutin	CYP2D6
Phillyrin	PTGS1	Rutin	CYP3A4
Phillyrin	PTGS2	Rutin	DIO1
Polydatin	Polydatin	Rutin	FCER2
Polydatin	Polydatin	Rutin	GSTP1
Polydatin	Polydatin	Rutin	HAS2
Polydatin	Polydatin	Rutin	HMGCR
Quercetin	NCOA2	Rutin	HSPA4
Quercetin	PRKACA	Rutin	IL1B
Quinic acid	IMPA1	Rutin	IL6
Quinic acid	IMPA2	Rutin	IL8
Quinic acid	PTGS2	Rutin	INS
Rhein	AKR1B1	Rutin	ITGB2
Rhein	AKR1B10	Rutin	POR
Rhein	BAX	Rutin	PRKCB
Rhein	CASP3	Rutin	SOD1
Rhein	CASP8	Rutin	TBXA2R
	HSP90AA		
Rhein	1	Rutin	TNF
	HSP90AB		
Rhein	1	Rutin	TOP2A
Rhein	LOX	Rutin	TOP2B

Rhein	NCOA2	Salidroside	CASP3
Rhein	NFKB1	Salidroside	HIF1A
Rhein	PIK3CG	Salidroside	PARP1
Rhein	PTGS1	Secoxyloganin	CA2
Rhein	PTGS2	Secoxyloganin	DPP4
Rhein	RARA	Secoxyloganin	F2
Rhein	RELA	S-suspensaside	
Rhein	RXRA	Sweroside	CA2
Rhein	SRD5A2	Sweroside	F2
Rhein	VEGFA	Sweroside	GABRA1
Rhodosin		Sweroside	GABRA2
R-suspensaside		Sweroside	NQO2
Rutin	ADRA2A	Sweroside	PRSS1
Rutin	ADRA2C	Tricin	AR
Rutin	AKR1C3	Tricin	CALM1
Tricin	CDK2	Tricin	PTGS1
Tricin	DPP4	Tricin	PTGS2
Tricin	ESR1	Tricin	SCN5A
			SULT1A
Tricin	ESR2	Tricin	1
Tricin	F7	Isoliquiritin apioside	
Tricin	GSK3B	Isomer of liquiritin apioside	
Tricin	HSP90AA 1	Isomer of Rengynic acid-1'-O-β-D-glucoside	
	HSP90AB		
Tricin	1	Isomer1 of Chrysophanol	
Tricin	MAPK14	Isomer1 of Forsythoside A	
Tricin	NCOA2	Isomer2 of Chrysophanol	
Tricin	NOS2	Physcion-8-O-β-D-glucopyranoside	

Tricin	PPARG	Rhododendrol-4'-O- β -D-glucopyranoside
Tricin	PRSS1	Rengynicacid-1'-O- β -D-glucoside

Table S2. Interactions of targets in influenza-related PPI network

Target1	Target2	Target1	Target2	Target1	Target2	Target1	Target2
41706	CD86	DUSP9	MAPK1	LAPTM5	EPN1	PTPRE	MAPK1
ABCF1	EIF6	DUSP9	MAPK14	LBP	CD14	PTPRH	MAPK1
ABL1	CDKN1B	DYRK1B	MAPK1	LCK	CD247	PTPRJ	IL2RG
ACLY	GSK3B	DYRK1B	MAPK14	LGALS2	LTA	PTPRR	MAPK1
ACP5	SPP1	E2F1	GSK3B	LGALS3BP	CD14	PTX3	C1QB
ACP5	TNFSF10	E2F1	NFKB1	LRP2	TTR	PTX3	C1QC
ACTN4	CAMK2B	EDAR	TRAF1	LTA4H	ARPC3	PTX3	CFH
ACVR1	IKBKB	EEF1A1	TTR	LTA4H	TMEM62	PTX3	FGF2
ADAMTS4	SERPINA3	EEF1D	FOS	LTB	LTA	PXN	MAPK1
ADRB2	IL1B	EEF1G	CXCL13	LTBR	LTA	PXN	SELE
AES	CCL7	EEF1G	HDAC5	LUC7L3	CLK1	PYCARD	CASP1
AFAP1L2	RASA1	EGFR	ELF3	LY6E	CD247	PYCARD	MEFV
AFAP1L2	SRC	EGFR	MAP2K1	LY96	TLR2	PYCARD	NLRC4
AIMP1	AIMP2	EGFR	MAPK1	LY96	TLR4	PYCARD	NLRP3
AIMP1	ATP5A1	EGFR	PIK3R2	LYN	CDKN1B	PYCARD	SRF
AIMP1	MAPK14	EIF2AK3	DNAJC3	MAF	FOS	PYDC2	PYCARD
AIMP1	RARS	EIF2AK3	IKBKB	MAGEA11	ILF3	RAB27A	GZMB
AKT1	CDKN1B	EIF2AK4	SMAD1	MALT1	BCL10	RAC1	TLR2
AKT1	EIF4EBP1	EIF2AK4	SMAD4	MALT1	SQSTM1	RAF1	MAP2K1
AKT1	GSK3B	EIF2AK4	TGFBR1	MALT1	TRAF2	RAF1	MAP2K2
AKT1	IKBKB	EIF4E2	EIF4EBP1	MALT1	TRAF6	RANBP2	HDAC4
ALOX5	ACTB	EIF4EBP1	CHTF8	MAP1B	GSK3B	RANBP2	MDM2
ALOX5	GRB2	EIF4EBP1	EIF4E	MAP2K1	CASP9	RANBP2	OPN1LW
ALOX5AP	ALOX5	EIF4EBP1	MVD	MAP2K1	ELK1	RANBP2	OPN1MW
ANKRD11	HDAC4	EIF4EBP2	EIF4E	MAP2K1	EP300	RANBP2	RAN

ANKRD11	HDAC5	ELANE	CXCR4	MAP2K1	MAPK14	RANGAP1	RANBP2
APC	GSK3B	ELANE	SERPINA3	MAP2K1	PARVA	RB1	FOS
APOA1	TTR	ELF1	NFKB1	MAP2K1	PRKCI	RBP4	TTR
AR	GSK3B	ELF3	EP300	MAP2K1	PRKCZ	RBPJ	MAML1
AR	NFKB1	ELF3	NFKB1	MAP2K1	RPS6KA4	RELA	IRF3
ARAF	MAP2K1	ELK1	CEBPB	MAP2K1	TRAF6	RET	MAPK1
ARHGDIA	CDKN1B	ELK1	FOS	MAP2K2	ARAF	RET	MAPK14
ARRB2	CXCR4	ELK1	MAPK1	MAP2K2	BRAF	RFX5	CIITA
ATF3	NFKB1	ELK4	FOS	MAP2K2	CASP9	RFXANK	CIITA
ATF4	CEBPB	ENO2	IL17B	MAP2K2	MAPK1	RGS12	MAP2K2
ATF7	FOS	EP300	CEBPB	MAP2K2	MAPK3	RHEBL1	EIF4EBP1
ATM	EIF4EBP1	EP300	IRF3	MAP2K3	MAPK14	RHOXF2	TOLLIP
ATN1	PSME3	EP300	IRF7	MAP2K4	MAPK14	RIPK1	NFKB1
ATP5B	PSME3	EPHA2	PIK3R2	MAP2K6	MAPK14	RIPK1	TICAM1
ATXN1	TOLLIP	EPHB2	FOS	MAP3K1	MAPK1	RIPK1	TRAF1
ATXN3	CASP1	EPN1	AP2A1	MAP3K13	IKBKB	RIPK2	BCL10
AURKA	GSK3B	EPN1	AP2A2	MAP3K14	IKBKB	RIPK2	BIRC2
AXL	IL2RG	EPN1	CLTC	MAP3K14	TRAF1	RIPK2	CASP1
BAT5	PTGS2	EPN1	KIAA1377	MAP3K3	IKBKB	RIPK2	CASP8
BATF	FOS	EPN1	MED31	MAP3K4	MAP2K1	RIPK2	CD40
BCAP31	CASP1	EPN1	REPS2	MAP3K7	FOS	RIPK2	IKBKG
BCL2	MAPK14	EPS15	ELF3	MAP3K7	IKBKB	RIPK2	NGFR
BCL3	GSK3B	EPS15	EPN1	MAP3K7IP1	MAPK14	RIPK2	SMAD4
BCL6	MAPK1	EPS15L1	EPN1	MAP3K8	NFKB1	RIPK2	SMURF1
BCOR	HDAC4	ERBB2	SERPINA3	MAP6	TRAF1	RIPK2	TNFRSF1A
BIRC2	TRAF1	ERBB3	PIK3R2	MAPK1	AR	RIPK2	TRAF1
BIRC3	TRAF1	ERBB4	PIK3R2	MAPK1	ARRB2	RIPK2	TRAF2
BIRC6	MAP2K1	ESR1	NFKB1	MAPK1	BCL2	RIPK2	TRAF5

BLM	MX1	ETS1	NFKB1	MAPK1	CAD	RIPK2	TRAF6
BRAF	MAP2K1	ETV6	HDAC9	MAPK1	CALCOCO1	RIPK2	UBE2I
BRAF	MAPK1	F2	SPP1	MAPK1	CASP9	RIPK3	TICAM1
BRMS1	HDAC4	F5	SERPINA3	MAPK1	CAV1	RNF11	EPN1
BRMS1	HDAC5	FADD	MYD88	MAPK1	CD19	RNF216	TLR3
BTK	MYD88	FAM48A	MAPK14	MAPK1	CEBPB	RNF216	TLR4
BTK	TLR4	FANCA	IKBKB	MAPK1	CMTM3	RNF216	TLR5
BTK	TLR6	FCER2	CR2	MAPK1	DUSP1	RNF216	TLR9
BTK	TLR9	FCGR3A	CD247	MAPK1	DUSP16	RNF5	CFTR
BUB1	EIF4EBP1	FGFR1	PIK3R2	MAPK1	DUSP2	RORC	EIF4EBP1
C14orf166	NIN	FHL3	MAPK1	MAPK1	DUSP5	RPS3	NFKB1
C1QBP	MAPK1	FHOD1	CR2	MAPK1	DUSP6	RPS6KA1	CEBPB
C2	C3	FKBP1A	RYR1	MAPK1	EIF4EBP1	RPS6KA1	FOS
C3	CR2	FLII	MYD88	MAPK1	EPOR	RPS6KA2	MAP2K1
C3	LRP1	FLNA	SELE	MAPK1	ERF	RPS6KA2	MAPK1
C3AR1	C3	FOS	ATF2	MAPK1	ESR1	RPS6KA3	MAPK1
C3AR1	C4A	FOS	BCL3	MAPK1	ETS1	RPS6KA4	FOS
C5	C3	FOS	CEBPG	MAPK1	FCGR2B	RPS6KA4	MAPK1
CAMK1	HDAC5	FOS	CSNK2A1	MAPK1	FOS	RPS6KA5	EIF4EBP1
CAMK2A	CEBPB	FOS	CSNK2A2	MAPK1	FRS2	RPS6KB1	EIF4EBP1
CAMK2B	CAMK2D	FOS	DDIT3	MAPK1	FRS3	RPS6KB1	MAPK1
CAMK2B	COL4A3	FOS	ETS1	MAPK1	GAB1	RPTOR	EIF4EBP1
CAMK2B	ETS1	FOS	HNF1A	MAPK1	GAB2	RSF1	NFKB1
CAMK2B	GRIN2A	FOS	JUNB	MAPK1	GABRR1	RUNX2	CEBPB
CAMK2B	ITPKA	FOS	LMNA	MAPK1	GATA1	RUNX2	FOS
CAMK2B	PLCB3	FOS	MITF	MAPK1	GJA1	RXRA	NFKB1
CAMK2G	RYR1	FOS	NFKB1	MAPK1	GORASP2	RXRG	CAMK2B
CAMK2N2	CAMK2B	FOS	RELA	MAPK1	GRB10	RYR1	CACNA1S

CAMK4	HDAC4	FOS	RUNX1	MAPK1	GRB2	RYR1	CALM1
CAMTA2	HDAC5	FOS	SMAD3	MAPK1	HSF4	RYR1	S100A1
CAPN1	IL1A	FOS	STAT1	MAPK1	HSP90AA1	RYR2	RYR1
CARD16	CASP1	FOXK2	IL2	MAPK1	IER3	S100A13	IL1A
CARD16	RIPK2	FOXO3	IKBKB	MAPK1	IFNAR1	SCHIP1	FOS
CARD17	CASP1	FRAT2	GSK3B	MAPK1	IQGAP1	SDC1	IL8
CARD6	NOD1	G3BP2	NFKB1	MAPK1	IRS1	SDC4	CCL5
CARD6	RIPK2	GAB2	CD247	MAPK1	KHDRBS1	SELE	ACTN2
CARD8	CASP1	GADD45A	MAPK14	MAPK1	KRT8	SELE	CD44
CARD8	NLRP3	GAPDH	CAMK2B	MAPK1	LCK	SELL	SELE
CASP1	AR	GATA2	MAPK1	MAPK1	LIFR	SELPLG	SELE
CASP1	ATN1	GATA4	FOS	MAPK1	LIPE	SERF2	PSME3
CASP1	BCL2L1	GCM1	HDAC4	MAPK1	LRPAP1	SERPINA3	APP
CASP1	BID	GCM1	HDAC5	MAPK1	MAFA	SERPINA3	HOXB1
CASP1	CDC2L2	GDF9	ILF3	MAPK1	MAP2K1	SERPINA3	SERPINA3
CASP1	CDK11B	GLG1	SELE	MAPK1	MBP	SERPINB9	GZMB
CASP1	EGFR	GMFB	MAPK1	MAPK1	MCL1	SERPING1	SELE
CASP1	FGF2	GMFB	MAPK14	MAPK1	MYB	SETDB1	TOLLIP
CASP1	HTT	GNA14	CCR1	MAPK1	NCOA1	SFTPD	DCN
CASP1	IL18	GNB1	HDAC5	MAPK1	NCOA3	SGK1	GSK3B
CASP1	IL1A	GOPC	CFTR	MAPK1	NDE1	SGK3	GSK3B
CASP1	IL1B	GPR77	C3	MAPK1	NEFH	SGK3	ITCH
CASP1	LMNA	GRB10	MAP2K1	MAPK1	NR3C1	SH2B3	CD247
CASP1	MAPT	GRB2	CD247	MAPK1	NR4A1	SHB	IL2RG
CASP1	NEDD4	GRIN1	MAP2K2	MAPK1	NR5A1	SHC1	CD247
CASP1	PARP1	GRIN2B	CAMK2B	MAPK1	PAK1	SHC1	IL2
CASP1	PLA2G4A	GRIN2D	MAP2K2	MAPK1	PAK2	SHC1	IL2RG
CASP1	PSEN1	GRIP1	IRF3	MAPK1	PLAT	SHC1	MAPK1

CASP1	PSEN2	GSK3B	AKAP11	MAPK1	PLCB1	SHC1	MAPK14
CASP1	TFAP2A	GSK3B	AKT2	MAPK1	PPARA	SIGIRR	TLR4
CASP10	TRAF1	GSK3B	APP	MAPK1	PPARG	SIGIRR	TLR5
CASP14	CASP1	GSK3B	AXIN1	MAPK1	PPP1CA	SIGIRR	TLR9
CASP3	IL18	GSK3B	AXIN2	MAPK1	PPP1R9B	SIGLEC12	CMAS
CASP3	PSME3	GSK3B	BICD1	MAPK1	PPP2CA	SIN3A	HDAC9
CASP3	TRAF1	GSK3B	BICD2	MAPK1	PRKCD	SIN3A	NFKB1
CASP4	IL18	GSK3B	CABYR	MAPK1	PRKCZ	SIN3B	HDAC9
CASP4	IL1B	GSK3B	CCND1	MAPK1	PTPN5	SIRPA	IL1RAP
CASP6	PSME3	GSK3B	CCNE1	MAPK1	PTPN7	SKP2	CDKN1B
CASP6	TRAF1	GSK3B	CDH1	MAPK1	RAF1	SLA	CD247
CASP7	PSME3	GSK3B	CDK5	MAPK1	RB1	SLA2	CD247
CASP8	CDKN1B	GSK3B	CEBPA	MAPK1	RGS19	SLAMF7	SH2D1A
CASP8	MAPK1	GSK3B	CREB1	MAPK1	RPS6KA1	SLC12A9	CPSF4
CASP8	TRAF1	GSK3B	CREM	MAPK1	RXRA	SLC35A2	MDFI
CAV1	PTGS2	GSK3B	CTNNB1	MAPK1	SCNN1G	SLC35A2	PLSCR1
CBL	ITCH	GSK3B	CTNND1	MAPK1	SH2D3C	SLC4A7	CFTR
CBLC	ITCH	GSK3B	DCTN1	MAPK1	SLC9A1	SLC4A8	CFTR
CCBP2	CCL13	GSK3B	DCTN2	MAPK1	SMAD1	SLC9A3R1	CFTR
CCBP2	CCL19	GSK3B	DPYSL2	MAPK1	SMAD2	SLC9A3R2	CFTR
CCBP2	CCL2	GSK3B	DYNC1I1	MAPK1	SMAD3	SMAD3	CEBPB
CCBP2	CCL21	GSK3B	EIF2B5	MAPK1	SMAD4	SMAD3	MECOM
CCBP2	CCL3	GSK3B	FOXO1	MAPK1	SNCA	SMAD4	CEBPB
CCBP2	CCL4	GSK3B	FRAT1	MAPK1	SORBS3	SMAD7	MAPK14
CCBP2	CCL5	GSK3B	GYS1	MAPK1	SOS1	SMARCA4	CEBPB
CCBP2	CCL7	GSK3B	HNRNPD	MAPK1	SP1	SMARCB1	CEBPB
CCL13	CCR2	GSK3B	ILK	MAPK1	SREBF1	SMARCC1	CEBPB
CCL13	CCR3	GSK3B	LRP6	MAPK1	STAT3	SMARCD1	FOS

CCL13	CCR5	GSK3B	MAPT	MAPK1	TCF3	SNAI1	GSK3B
CCL14	CCR1	GSK3B	MARK2	MAPK1	TGIF1	SNAP23	CFTR
CCL14	CCR3	GSK3B	MCL1	MAPK1	TNFRSF1A	SNCG	MAPK1
CCL15	CCR1	GSK3B	MITF	MAPK1	TNFRSF25	SOCS1	CXCR4
CCL15	CCR3	GSK3B	MUC1	MAPK1	TOB1	SOCS3	CXCR4
CCL16	CCR1	GSK3B	MYOCD	MAPK1	TP53	SOCS6	PIK3R2
CCL17	VCAM1	GSK3B	NFKB1	MAPK1	TSC2	SON	PRPF40A
CCL19	CCR10	GSK3B	NOTCH1	MAPK1	UBTF	SON	SNIP1
CCL19	CCR7	GSK3B	NOTCH2	MAPK1	VAV1	SOS1	PIK3R2
CCL19	CCRL1	GSK3B	OGT	MAPK1	ZFP36	SPAG9	MAPK14
CCL2	DARC	GSK3B	PPP1R2	MAPK14	ATF2	SPAG9	NFKB1
CCL2	VCAN	GSK3B	PRKCB	MAPK14	CDC25C	SPI1	NFKB1
CCL20	CCR6	GSK3B	PSEN1	MAPK14	CREB1	SPIB	CEBPB
CCL20	VCAN	GSK3B	PTK2	MAPK14	CSNK2A2	SPOP	TRAF1
CCL21	CCR7	GSK3B	PTPN1	MAPK14	CSNK2B	SPP1	ABCF3
CCL21	CCRL1	GSK3B	PXN	MAPK14	DDIT3	SPP1	CTNNBL1
CCL21	UBQLN4	GSK3B	RCAN1	MAPK14	EEA1	SPP1	IGFBP5
CCL21	VCAN	GSK3B	SNCAIP	MAPK14	EEF2K	SPP1	ITGA5
CCL22	CCL19	GSK3B	TP53	MAPK14	EIF4EBP1	SPP1	ITGB1
CCL23	CCR1	GTF2F2	FOS	MAPK14	ELK1	SPP1	PDLIM7
CCL24	CCR3	GZMB	BID	MAPK14	ELK3	SPP1	SGTA
CCL26	CCR3	GZMB	CASP3	MAPK14	ESR1	SPP1	UBQLN4
CCL28	CCR3	GZMB	CASP7	MAPK14	FKBP8	SRC	CDKN1B
CCL3	SRGN	GZMB	CASP9	MAPK14	FLNA	SRC	IKBKB
CCL3L1	CCR1	GZMB	CHRM3	MAPK14	GRB2	SRC	TRAF1
CCL3L1	CCR3	GZMB	DFFA	MAPK14	HNF4A	SREBF2	MAPK1
CCL4	CCL3	GZMB	GRIA3	MAPK14	HSF4	SRF	CEBPB
CCL4	CCR3	GZMB	LMNB1	MAPK14	JDP2	SRGN	GZMB

CCL4	IL8	GZMB	PARP1	MAPK14	JUNB	ST3GAL3	TTR
CCL5	DARC	GZMB	PRKDC	MAPK14	KRT18	STAT1	CXCR4
CCL5	GRB2	GZMB	PTK2	MAPK14	KRT8	STAT1	IL2RG
CCL5	PIGR	GZMB	UBE4A	MAPK14	MAFA	STAT1	MAPK14
CCL5	SDC1	GZMB	UBE4B	MAPK14	MAP3K7	STAT2	CXCR4
CCL5	VCAN	GZMB	XRCC4	MAPK14	MAPK1	STAT3	CXCR4
CCL7	CCL7	HAX1	IL1A	MAPK14	MAPKAPK2	STAT5A	CD247
CCL7	FEZ1	HDAC1	MECOM	MAPK14	MAPKAPK5	STAT5A	CEBPB
CCL8	CCR1	HDAC1	NFKB1	MAPK14	MARS	STAT5A	IL2RG
CCL8	CCR3	HDAC3	HDAC4	MAPK14	MAX	STAT5A	MAPK1
CCNA1	CDKN1B	HDAC3	HDAC9	MAPK14	MEF2A	STAT5B	CD247
CCND2	CDKN1B	HDAC4	ANKRA2	MAPK14	MEF2C	STAT5B	CXCR4
CCNE2	CDKN1B	HDAC4	ATRX	MAPK14	NCF1	STAT5B	MAPK1
CCR1	CCL2	HDAC4	BCL6	MAPK14	NCOA3	STAT6	CEBPB
CCR1	CCL26	HDAC4	CBX5	MAPK14	NFATC1	STAT6	NFKB1
CCR1	CCL3	HDAC4	CIITA	MAPK14	NFATC4	STK39	MAPK14
CCR1	CCL4	HDAC4	MAP1S	MAPK14	NUP153	SUMO1	FOS
CCR1	CCL5	HDAC4	MAPK1	MAPK14	PLA2G4A	SUMO1	HDAC4
CCR1	CCL7	HDAC4	MAPK3	MAPK14	PML	SUMO2	FOS
CCR1	CREB3	HDAC4	MECOM	MAPK14	PPARGC1A	SUMO3	FOS
CCR1	JAK1	HDAC4	MEF2A	MAPK14	PTPN7	SUMO4	FOS
CCR1	PLP2	HDAC4	MEF2C	MAPK14	RPS6KA4	SYK	TLR4
CCR1	STAT1	HDAC4	MEF2D	MAPK14	SCN8A	TAF1	FOS
CCR1	STAT3	HDAC4	NCOR2	MAPK14	SLC9A1	TAF6	CIITA
CCR10	CCL2	HDAC4	NR2C1	MAPK14	SMAD3	TAF9	CEBPB
CCR10	CCL7	HDAC4	RBBP4	MAPK14	STAT4	TAF9	ELF3
CCR2	CCL2	HDAC4	REV3L	MAPK14	ZFP36L1	TANK	IKKBK
CCR2	CCL7	HDAC4	RFXANK	MAPK14	ZFYVE20	TANK	TRAF1

CCR3	CCL11	HDAC4	RUNX2	MAPK3	MAP2K1	TBK1	TICAM1
CCR3	CCL3	HDAC4	RUNX3	MAPK3	MAPK14	TBP	FOS
CCR3	CCL5	HDAC4	RUVBL2	MAPK8	MAPK1	TFRC	CD247
CCR3	CCL7	HDAC4	SUMO2	MAPK8	MAPK14	TGFB1	CCL3
CCR3	CXCL10	HDAC4	TNFRSF14	MAPK8IP3	MAP2K1	TGFBR2	PIK3R2
CCR3	FGR	HDAC4	YWHAE	MAPK9	NFATC3	TGFBRAP1	ALOX5
CCR3	HCK	HDAC4	YWHAZ	MAPKAPK2	ALOX5	TH	MAPK1
CCR4	CCL17	HDAC5	ANKRA2	MAPKAPK3	MAPK14	THRB	CAMK2B
CCR4	CCL3	HDAC5	BCL6	MAPKAPK5	EIF4EBP1	TICAM1	AZI2
CCR4	CCL5	HDAC5	BCOR	MAPKAPK5	MAPK1	TICAM1	IRF3
CCR5	CCL2	HDAC5	CBX5	MAPKSP1	MAP2K1	TICAM1	IRF7
CCR5	CCL3	HDAC5	CIITA	MAPKSP1	MAP2K2	TICAM1	MAVS
CCR5	CCL4	HDAC5	DDX20	MAPKSP1	MAPK1	TICAM1	PIAS4
CCR5	CCL5	HDAC5	GABARAP	MARK3	CPSF4	TICAM1	TLR3
CCR5	CCL7	HDAC5	GATA1	MAVS	DDX58	TICAM1	TRAF1
CCR5	CXCR4	HDAC5	GATA2	MBP	MAPK14	TICAM1	TRAF6
CCR7	CCR10	HDAC5	HDAC3	MED23	CEBPB	TICAM1	TRAM1
CCR8	CCL17	HDAC5	HR	MED23	ELF3	TICAM2	IL1RAP
CCR8	CCL4	HDAC5	MEF2A	MEF2B	HDAC4	TICAM2	IRAK2
CCRL1	CCL13	HDAC5	MEF2C	MEFV	PSTPIP1	TICAM2	IRF3
CCRL1	CCL2	HDAC5	MEF2D	MEGF10	HDAC4	TICAM2	IRF7
CCRL1	CCL5	HDAC5	NCOR1	METAP2	MAPK1	TICAM2	TICAM1
CCRL1	CCL7	HDAC5	NCOR2	MFAP4	SFTPD	TICAM2	TLR3
CCRL1	CXCL13	HDAC5	RFXANK	MITF	MAPK1	TICAM2	TLR4
CD14	CD55	HDAC5	RUNX3	MITF	MAPK14	TIRAP	CD247
CD14	LTF	HDAC5	SFN	MKNK1	MAPK1	TIRAP	IRAK2
CD14	TLR3	HDAC5	SUV39H1	MKNK1	MAPK14	TIRAP	MYD88
CD2	CD247	HDAC5	UBC	MKNK2	MAPK1	TIRAP	TICAM1

CD247	CD244	HDAC5	YWHAB	MKNK2	MAPK14	TIRAP	TLR4
CD247	CD28	HDAC5	YWHAE	MMP1	CCL13	TLR1	DHX36
CD247	CD48	HDAC9	BCL6	MMP1	CCL2	TLR1	TLR10
CD247	CD5	HDAC9	CBX5	MMP1	CCL7	TLR1	TLR5
CD247	CSK	HDAC9	CTBP1	MMP1	SERPINA3	TLR1	TLR9
CD247	FYN	HDAC9	HDAC1	MMP13	CCL7	TLR1	TRAP1
CD247	PTPN3	HDAC9	HDAC4	MMP14	CCL7	TLR2	CD14
CD247	PTPRC	HDAC9	MEF2A	MMP2	CCL7	TLR2	HMGB1
CD247	ZAP70	HDAC9	NCOR1	MMP2	IL1B	TLR2	HSP90B1
CD28	PIK3R2	HDAC9	SUMO1	MMP3	CCL13	TLR2	IRAK1
CD3D	CD247	HDAC9	SUMO2	MMP3	CCL2	TLR2	MAPK8IP3
CD4	CXCR4	HIVEP3	TRAF1	MMP3	CCL7	TLR2	RIPK2
CD4	HLA-DPA1	HLA-DPA1	HLA-DPB1	MMP3	SPP1	TLR2	SFTPA1
CD40	BIRC2	HMGA1	CEBPB	MMP7	SPP1	TLR2	TICAM1
CD40	BIRC3	HMGA2	NFKB1	MMP8	CCL2	TLR2	TLR1
CD40	CAV1	HMGB1	TLR4	MMP9	IL8	TLR2	TLR10
CD40	CBL	HNRNPH3	CCL13	MS4A1	CD40	TLR3	CSK
CD40	HSPA4	HNRNPH3	TTR	MST1	SERPINA3	TLR3	MYD88
CD40	HSPA8	HNRNPK	CEBPB	MTOR	EIF4EBP1	TLR3	TLR3
CD40	IL4R	HOMER1	RYR1	MTPN	NFKB1	TLR4	BCL10
CD40	JAK3	HOMER2	RYR1	MX1	ACTB	TLR4	CD14
CD40	MAP3K8	HOMER3	RYR1	MX1	TRPC1	TLR4	CNPY4
CD40	PIK3R1	HRAS	MAP2K1	MX1	TRPC3	TLR4	HSP90B1
CD40LG	CD40	HRAS	TLR2	MX1	TRPC4	TLR4	IRAK2
CD53	IL2	HRAS	TLR9	MX1	TRPC5	TLR4	MAPK8IP3
CD53	IL4	HSP90B1	TLR1	MX1	TRPC6	TLR4	MYD88
CD74	HLA-DPA1	HSPA5	PSME3	MX1	TRPC7	TLR4	NOX4
CD86	CD28	HSPA8	CXCR4	MYB	CEBPB	TLR4	RIPK2

CD86	CD80	HSPD1	TLR1	MYC	CEBPB	TLR4	TLR1
CD86	CTLA4	HTRA2	MAPK14	MYC	ELF3	TLR4	TLR5
CDC25B	MAPK14	IFITM1	CR2	MYC	GSK3B	TLR6	TLR2
CDC37	IKBKB	IFNA1	CR2	MYC	MAP2K1	TLR6	TRAP1
CDK1	EPN1	IFNA2	IFNAR1	MYD88	IL1R1	TLR7	MYD88
CDK2	CDKN1B	IFNAR2	IFNA2	MYD88	IRAK1	TLR8	MYD88
CDK5	MAP2K1	IFNAR2	IFNB1	MYD88	IRF5	TLR9	MAPK8IP3
CDK8	MAML1	IFNB1	IFNAR1	MYD88	IRF7	TMEM132A	GSK3B
CDK9	NFKB1	IFNG	IFNGR1	MYD88	SPOP	TNFAIP3	TICAM1
CDKN1B	CCNA2	IFNG	IFNGR2	MYD88	STAP2	TNFRSF10A	TNFSF10
CDKN1B	CCNB1	IFNG	TNF	MYD88	TLR10	TNFRSF10B	TNFSF10
CDKN1B	CCND1	IGF1R	PIK3R2	MYD88	TLR2	TNFRSF10C	TNFSF10
CDKN1B	CCND3	IGF2R	GZMB	MYD88	TLR5	TNFRSF10D	TNFSF10
CDKN1B	CDK3	IGFBP7	CCL21	MYOC	IGLL1	TNFRSF11A	TRAF1
CDKN1B	CDK4	IGFBP7	CCL5	NACC1	HDAC4	TNFRSF12A	TRAF1
CDKN1B	CDK5	IGFBP7	CXCL10	NCF1	NFKB1	TNFRSF14	LTA
CDKN1B	COPS5	IKBKAP	IKBKB	NCOA1	CIITA	TNFRSF14	TRAF1
CDKN1B	GRB2	IKBKB	CASP8	NCOA1	FOS	TNFRSF18	TRAF1
CDKN1B	KPNA3	IKBKB	CTNNB1	NCOA1	NFKB1	TNFRSF19	TRAF1
CDKN1B	KPNA5	IKBKB	EIF2AK2	NCOA3	PSME3	TNFRSF1A	IKBKB
CDKN1B	MCM7	IKBKB	HSP90AA1	NCOR2	FOS	TNFRSF1A	LTA
CDKN1B	SPDYA	IKBKB	HSP90AB1	NCOR2	NFKB1	TNFRSF1B	LTA
CDKN1B	STMN1	IKBKB	IRS1	NCR1	CD247	TNFRSF4	SIVA1
CDKN1B	TRAF2	IKBKB	KIAA1967	NCR1	CD59	TNFRSF4	TNFRSF9
CDKN1B	UCHL1	IKBKB	MAP3K11	NCR1	FCER1G	TNFRSF4	TRAF1
CDKN1B	YWHAB	IKBKB	NCOA3	NCR3	CD247	TNFRSF4	TRAF4
CDKN1B	YWHAG	IKBKB	NFKB1	NDFIP2	ITCH	TNFRSF9	TRAF1
CDKN1B	YWHAH	IKBKB	NFKBIA	NDN	IL1A	TNFRSF9	TRAF2

CDKN1B	YWHAQ	IKBKB	NFKBIB	NDRG1	DDX1	TNFRSF9	TRAF3
CDX2	GSK3B	IKBKB	PEBP1	NDRG1	ILF3	TNFSF10	C7orf64
CDX2	MAPK1	IKBKB	PRKCQ	NEDD9	ITCH	TNFSF10	TNFRSF11B
CDX2	MAPK14	IKBKB	RELA	NEK2	MAPK1	TNFSF10	TNFSF10
CEBPB	ATF2	IKBKB	STAP2	NFATC3	FOS	TNFSF11	MAPK1
CEBPB	CCL3	IKBKB	TBK1	NFATC3	TTF1	TNFSF11	NFKB1
CEBPB	CEBPA	IKBKB	TGFBR1	NFATC4	CREBBP	TNFSF4	TNFRSF4
CEBPB	CEBPD	IKBKB	TNFAIP3	NFATC4	GATA4	TNFSF4	TRAF2
CEBPB	CEBPG	IKBKB	TRAF2	NFATC4	YWHAQ	TNFSF9	TNFRSF9
CEBPB	CREB1	IKBKB	YWHAB	NFATC4	YWHAZ	TNFSF9	TRAF1
CEBPB	CREBBP	IKBKE	TICAM1	NFE2L2	CASP1	TNIP1	MAPK1
CEBPB	DDIT3	IKBKG	GSK3B	NFKB1	BCL3	TNIP2	NFKB1
CEBPB	EGFR	IKBKG	IKBKB	NFKB1	BRCA1	TNPO1	RANBP2
CEBPB	EGR1	IL10	A2M	NFKB1	BTRC	TOLLIP	41883
CEBPB	ESR1	IL10	IL10RB	NFKB1	CFLAR	TOLLIP	DAZAP2
CEBPB	FOXO1	IL10RA	IL10	NFKB1	CHUK	TOLLIP	IL1RAP
CEBPB	HMGB1	IL12A	IL8	NFKB1	FBXW11	TOLLIP	IRAK1
CEBPB	HOMER3	IL13RA1	IL13	NFKB1	HMGB1	TOLLIP	LDB1
CEBPB	HSF1	IL13RA2	IL13	NFKB1	IKBKG	TOLLIP	RBPMs
CEBPB	MAPK3	IL13RA2	IL4	NFKB1	IL2RA	TOLLIP	TLR2
CEBPB	NFKB1	IL15	IL2RG	NFKB1	IRF1	TOLLIP	TLR4
CEBPB	NR3C1	IL15RA	IL2RG	NFKB1	IRF2	TOLLIP	TOM1
CEBPB	PTGES2	IL17RA	IL17A	NFKB1	KPNA3	TOLLIP	TOM1L1
CEBPB	RB1	IL17RB	IL17B	NFKB1	LYL1	TP53	CR2
CEBPB	RELA	IL18BP	IL18	NFKB1	MEN1	TP53BP1	NFKB1
CEBPB	RPS6KA5	IL18R1	IL18	NFKB1	NFKB2	TP73	ITCH
CEBPB	RUNX1	IL18R1	IL1RAP	NFKB1	NFKBIA	TPPP	GSK3B
CEBPB	SP1	IL18RAP	IL18	NFKB1	NFKBIB	TPR	MAPK1

CEBPB	SPI1	IL1A	IL1R1	NFKB1	NFKBIE	TPST1	CCR1
CEBPZ	LAG3	IL1B	A2M	NFKB1	NR3C1	TPST1	CCR2
CELA1	SERPINA3	IL1R1	IL1B	NFKB1	PDCD11	TPST1	CCR8
CENPJ	LAG3	IL1R1	IL1RN	NFKB1	REL	TPST1	CMKLR1
CEP55	MAPK1	IL1R1	TOLLIP	NFKB1	RELA	TPST1	GP1BA
CFHR4	C3	IL1R2	IL1A	NFKB1	RELB	TPST1	GPR1
CFHR5	C3	IL1R2	IL1B	NFKB1	STAT3	TPST1	SELPLG
CFI	C3	IL1R2	IL1RN	NFKB1	UBE2D3	TPST2	CCR1
CFLAR	IKBKB	IL1RAP	IL1A	NFKB2	HDAC4	TRA	CD247
CFLAR	RIPK2	IL1RAP	IL1B	NFKB2	HDAC5	TRA2B	IVNS1ABP
CFLAR	TRAF1	IL1RAP	IL1R1	NFKB2	IKBKB	TRADD	TRAF1
CFTR	CANX	IL1RAP	IL1R2	NFKBIE	IL1A	TRAF1	CD40
CFTR	EZR	IL1RAP	IRAK1	NFKBIZ	NFKB1	TRAF1	GFI1B
CFTR	PDZD3	IL1RAP	MYD88	NFRKB	NFKB1	TRAF1	TNFAIP3
CFTR	PRKAR2A	IL1RAP	PIK3R1	NGFR	IL2	TRAF1	TNFRSF17
CFTR	PRKCE	IL1RAP	PRPF40A	NGFR	MAPK1	TRAF1	TNFRSF1A
CFTR	SLC9A6	IL1RAP	RAC1	NGFRAP1	TRAF1	TRAF1	TNFRSF1B
CFTR	STX1A	IL1RAP	STAT3	NIN	GSK3B	TRAF1	TNFRSF8
CHD3	IVNS1ABP	IL1RL1	MYD88	NKRF	NFKB1	TRAF1	TRAF2
CHGB	MOGS	IL1RL2	IL18	NKX2-1	MAPK1	TRAF1	TRAF3IP2
CHUK	IKBKB	IL2	IFNA1	NLRC4	CASP1	TRAF2	CD40
CIITA	NFYB	IL2	IL2RB	NLRP1	CASP1	TRAF2	TNFRSF4
CIITA	ZXDC	IL22	IL10RB	NLRP1	NOD1	TRAF3	CD40
CKS1B	CDKN1B	IL22RA1	IL22	NLRP1	PYCARD	TRAF3	MAP2K1
CLK1	GOLM1	IL22RA2	IL22	NLRP12	PYCARD	TRAF3	TICAM1
CLK1	MBP	IL23A	IL12RB1	NOD1	CASP1	TRAF3	TNFRSF4
CLK1	PIAS4	IL23R	IL23A	NOD1	CASP2	TRAF3IP2	CD40
CLK1	PPIG	IL28RA	IL29	NOD1	CASP4	TRAF3IP2	IKBKB

CLK1	PRPF4	IL2RA	IL2	NOD1	CASP8	TRAF4	TICAM1
CLK1	PTPN1	IL2RG	CAPNS1	NOD1	CASP9	TRAF5	CD40
CLK1	SFRS1	IL2RG	ICAM1	NOD1	RIPK2	TRAF5	TNFRSF4
CLK1	SFRS6	IL2RG	IL2	NOD2	RIPK2	TRAF6	CD40
CLK1	UBL5	IL2RG	IL2RB	NOLC1	CEBPB	TRAF6	IRF7
CLK1	YWHAG	IL2RG	IL4	NOTCH1	NFKB1	TRAF6	MAPK14
CMA1	SERPINA3	IL2RG	IL4R	NR2C2	IKBKB	TRAF6	TLR3
CNKSR1	MAP2K2	IL2RG	IL7	NRIP1	HDAC5	TRAIIP	TRAF1
COBRA1	FOS	IL2RG	IL7R	NSMAF	CD40	TRAT1	CD247
COG5	MEFV	IL2RG	IL9R	NTRK3	MAPK1	TRB	CD247
COIL	PSME3	IL2RG	JAK1	NUCB1	PTGS2	TRDN	RYR1
COTL1	ALOX5	IL3	CSF2RB	NUP50	CDKN1B	TRIB1	MAP2K1
CPN1	C3	IL3	HRAS	NUP62	RANBP2	TRIM28	CEBPB
CPNE1	MAP2K1	IL3	PIK3CA	OLFM4	C3	TRIM37	TRAF1
CPNE4	MAP2K1	IL3RA	IL3	OPTN	FOS	TRIP4	NFKB1
CPSF4	FIP1L1	IL4R	IL13	PAK1	CASP1	TRIP6	ILF3
CR2	ANXA6	IL4R	IL4	PAK1	MAP2K1	TRIP6	SON
CR2	CD19	IL5RA	IL5	PARK2	CASP1	TRIP6	TLR2
CR2	CR1	IL6	SH3GL2	PARK2	RANBP2	TRO	FOS
CR2	HNRNPU	IL6	ZBTB16	PARP1	NFKB1	TRPC4AP	IKBKB
CREBBP	ELF3	IL6R	IL6	PDGFRB	PIK3R2	TRPV4	ITCH
CREBBP	IRF7	IL6ST	IL6	PDIA3	IFNG	TSC2	CDKN1B
CREBBP	MECOM	IL7R	IL7	PDZK1	CFTR	TSC2	GSK3B
CRMP1	EPN1	IL8	CXCR1	PEA15	MAPK1	TSC22D3	FOS
CSDA	GSK3B	IL8	CXCR2	PEBP1	MAP2K1	TSC22D3	NFKB1
CSDA	MAPK1	IL8	DARC	PEBP1	MAPK1	TTR	AGER
CSF2RA	IKBKB	IL8	GNAI2	PEBP4	MAP2K1	TTR	ATF4
CSNK1A1	NFATC3	IL8	PF4	PELI2	MYD88	TTR	C7orf20

CSNK2A1	EIF4EBP1	ILF3	DHX9	PF4	CCL5	TTR	CHD3
CSNK2A1	SPP1	ILF3	EIF2AK2	PFN2	IVNS1ABP	TTR	DDR1
CSNK2A2	EIF4EBP1	ILF3	FUS	PHB2	HDAC5	TTR	FEZ1
CSNK2A2	SPP1	ILF3	KRTAP4-12	PI4K2B	CD247	TTR	HSPG2
CTBP1	MECOM	ILF3	MDFI	PIAS1	DDX21	TTR	IKBKAP
CTBP2	MECOM	ILF3	PLSCR1	PIK3CA	TICAM1	TTR	MARK3
CTNNB1	NFKB1	ILF3	PRMT1	PIK3CD	IL3	TTR	PHYHIP
CTRB1	SERPINA3	ILF3	SMN1	PIK3CD	IL4	TTR	SETDB1
CTRC	SERPINA3	ILF3	XPO5	PIK3R1	IL13	TTR	VIM
CTRL	SERPINA3	IPO5	RANBP2	PIK3R1	TLR2	TTRAP	CD40
CTSD	CCL21	IQGAP1	AIMP1	PIK3R2	41884	TUBA4A	LTA
CTSG	CXCR4	IRAK1	IRF7	PIK3R2	AXL	TUBB	MX1
CTSG	SERPINA3	IRAK1	MAPK14	PIK3R2	CBL	TXN	NFKB1
CTSL1	IL8	IRAK1	RIPK2	PIK3R2	CRKL	UBB	CDKN1B
CUL4A	CDKN1B	IRAK1	TLR4	PIK3R2	CSF1R	UBB	IKBKB
CXCL1	DARC	IRAK2	HRAS	PIK3R2	EGF	UBE2I	RANBP2
CXCL10	CXCL10	IRAK2	IL1R1	PIK3R2	ERBB2	UBE2K	NFKB1
CXCL10	VCAN	IRAK2	IRAK1	PIK3R2	FYN	UBR5	MAPK1
CXCL11	CCR3	IRAK2	MYD88	PIK3R2	GRB2	UMOD	LTA
CXCL11	CXCR3	IRAK2	PELI1	PIK3R2	HCK	UMOD	MMP8
CXCL12	CXCR4	IRAK2	PELI2	PIK3R2	IRS1	UNC119	CD247
CXCL13	CCL19	IRAK2	PELI3	PIK3R2	KIT	UNC5CL	NFKB1
CXCL13	CCL21	IRAK2	SMAD2	PIK3R2	PIK3CD	UPF3A	GSK3B
CXCL13	CCR10	IRAK2	SMURF1	PIK3R2	SHC1	USF1	HDAC9
CXCL13	CXCR3	IRAK2	TRAF6	PIK3R2	SOCS1	USF2	FOS
CXCL13	CXCR5	IRAK3	IRAK2	PIK3R2	SOCS7	USP7	TRAF1
CXCL13	FGF2	IRAK3	MYD88	PIK3R2	SYK	VCAM1	IL13
CXCL2	CXCL2	IRAK4	MYD88	PIK3R2	TGFBR1	VCL	SELE

CXCL9	CCR3	IRF3	CREBBP	PLCG1	SELE	VIM	IVNS1ABP
CXCL9	CXCR3	IRF3	IKBKE	PLG	CXCL2	VSIG4	C3
CXCR1	CXCL2	IRF3	MAVS	PLK3	MAP2K1	WASF1	IL8
CXCR1	CXCL3	IRF3	PIAS4	PLK3	MAPK1	WASF3	PIK3R2
CXCR1	CXCL6	IRF3	SERPINB2	POLA1	SERPINA3	WDR65	FOS
CXCR2	CXCL2	IRF3	SMURF2	POP1	PYCARD	WWP1	IL2RG
CXCR2	CXCL3	IRF3	SYT1	PPARGC1A	GSK3B	WWP2	IL2RG
CXCR2	CXCL6	IRF3	TBK1	PPIB	IRF3	XBP1	FOS
CXCR3	CXCL10	IRF4	MYD88	PPIL5	TNFRSF9	XPO1	CDKN1B
CXCR4	ADRBK2	IRF5	IRF3	PPM1B	IKBKB	XPO1	CIITA
CXCR4	GNA13	IRF7	IRF3	PPP2CA	EIF4EBP1	XPO1	RANBP2
CXCR4	GNAI1	IRF7	MAVS	PPP2R1B	CFTR	XPOT	RANBP2
CXCR4	JAK2	IRF7	PIAS4	PPP4C	NFKB1	XRCC5	CD40
CXCR4	MYH9	IRS2	PIK3R2	PRDX1	IRF3	XRCC6	CD40
CXCR4	PTK2	ITCH	ATN1	PRF1	GZMB	XRN2	TOLLIP
CXCR4	PTPN11	ITCH	CPSF6	PRKAA1	CFTR	YBX1	GSK3B
CXCR4	PTPRC	ITCH	DTX1	PRKACA	CFTR	YBX1	MAPK1
CXCR4	SDC4	ITCH	JUN	PRKACA	CIITA	YES1	CDKN1B
CXCR4	VAV1	ITCH	NOTCH1	PRKACA	FOS	YWHAB	PIK3R2
CYLD	DDX58	ITCH	NUMB	PRKACA	GSK3B	YWHAB	SON
DAPK1	MAPK1	ITCH	OCLN	PRKACA	NFKB1	YWHAE	CDKN1B
DARC	CCL17	ITCH	POLR2A	PRKACA	RYR1	YWHAG	HDAC4
DARC	CCL7	ITCH	RIPK1	PRKAR1A	PYCARD	YWHAG	SON
DARC	CCL8	ITCH	RNF11	PRKCA	CFTR	ZBTB16	EPN1
DARC	CXCL5	ITCH	SH3GL2	PRKCA	SPP1	ZBTB16	HDAC4
DAXX	MX1	ITCH	TRPC4	PRKCB	IKBKB	ZBTB16	HDAC5
DDX1	CSTF2	ITCH	TRPV1	PRKCE	MAPK1	ZBTB16	HDAC9
DDX1	RELA	ITGA9	SPP1	PRKCZ	GSK3B	ZBTB16	TOLLIP

DDX21	JUN	ITGAV	SPP1	PRKCZ	IKBKB	ZHX1	TOLLIP
DEFB4	TLR4	ITGB2	CD14	PRKD1	HDAC5	ZNF346	ILF3
DERL1	CFTR	ITGB3BP	NFKB1	PRKG1	CFTR	ZNHIT1	MAPK14
DMBT1	SFTPD	ITPKB	PSME3	PRKG1	RYS1	TNFRSF7	
DNAJA1	CFTR	IVNS1ABP	SYNCRIP	PRKG1	SPP1	STAU	
DNAJB1	DNAJC3	JAK1	CXCR4	PRKRIR	DNAJC3	SIAT1	
DNAJC1	SERPINA3	JAK3	CD247	PRTN3	IL1B	PFC	
DNAJC3	EIF2AK2	JAK3	CXCR4	PSMB9	NCOA1	PAF1	
DNAJC3	HSPA1A	JAK3	IL2RG	PSMB9	NCOA2	MX2	
DNAJC3	TIRAP	JUN	ELF3	PSMB9	NCOA3	MOX2	
DNAJC5	CFTR	JUN	FOS	PSMB9	PSMB10	IFITM3	
DNM1L	GSK3B	JUND	FOS	PSMC5	FOS	IFI30	
DOCK2	CD247	JUND	MAPK1	PSME3	ADAP1	IFIH1	
DPP4	CCL5	KAT2A	IRF7	PSME3	BBS2	IL17F	
DPP4	CXCL10	KAT2B	CIITA	PSME3	FXR2	CLEC4C	
DPP4	CXCL11	KAT2B	IRF7	PSME3	KIAA1267	CMAHP	
DPP4	CXCL9	KAT2B	MECOM	PSME3	MDM2	CPT2	
DPP4	CXCR4	KAT5	NFKB1	PSME3	NUDT18	CRTAM	
DUSP1	MAPK14	KLF11	MAPK1	PSME3	TP53	APG5L	
DUSP10	MAPK14	KLF4	HDAC5	PSME3	WDR25		
DUSP16	MAPK14	KLF5	NFKB1	PSME3	ZCCHC10		
DUSP2	MAPK14	KLK2	SERPINA3	PTGS2	TP53		
DUSP22	MAPK14	KLK3	SERPINA3	PTHLH	IL6		
DUSP3	MAP2K2	KLK4	SERPINA3	PTK2	SELE		
DUSP3	MAPK1	KPNB1	RANBP2	PTPN1	MAPK1		
DUSP4	MAPK1	KSR1	MAP2K1	PTPN11	SELE		
DUSP4	MAPK14	KSR1	MAPK1	PTPN22	CD247		
DUSP7	MAPK1	KSR2	MAP2K1	PTPN6	CD247		

DUSP7

MAPK14

KSR2

MAPK1

PTPN6

CXCR4
