Supplementary Table S1 Gene sets of IFN-γ response, effector genes, cytolytic score

IFN-γ Response (M5913)	Il10ra	Trim26	H2-Eb2	Cdkn1a
Stat1	Pla2g4a	Vcam1	Gbp4	Irf4
Isg15	Trim21	Cd274	Lcp2	Nfkb1
Ifit1	Usp18	Ciita	H2-M3	Batf2
Mx2	Ptgs2	Nampt	Mt2	H2-K1
Ifit3b	Epsti1	Selp	Ripk1	Lats2
Ifi35	C1s2	Gpr18	Klrk1	Irf5
Irf7	Ddx58	Fpr1	Upp1	Slamf7
Ifit2	Il15	Helz2	Psmb2	Isoc1
Oas2	Nlrc5	Psme2	Tdrd7	P2ry14
Tap1	Nmi	Serping1	Hif1a	Stat3
Eif2ak2	Ido1	Ccl5	Eif4e3	Ncoa3
Rsad2	Psmb10	Rnf31	Vamp8	H2-K1
Mx2	Cxcl11	Sod2	Pfkp	Il6
Irf1	Itgb7	Trim25	Cd38	Gzma
Oas3	Samhd1	Lap3	Zbp1	Ifnar2
Tnfsf10	Herc6	Psma3	Bank1	Cd74
Irf9	Cmpk2	Peli1	Tor1b	Rapgef6
Cxcl10	Samd9l	Cfb	Rbck1	Casp4
Ifi44	Rtp4	Cd86	Pde4b	Fas
Bst2	Ptpn2	Txnip	Mvp	Ogfr
Xaf1	Parp14	H2-Aa	Il7	Arl4a
Sp110	Tnfaip2	Gch1	Bpgm	Sri
Oasl1	Ifitm2	Pnp	Cmtr1	Lysmd2
Psmb8	Plscr1	Ccl7	Auts2	Csf2rb
Ifi44l	Socs1	Ptpn6	B2m	St3gal5
Ifitm3	Casp1	Sppl2a	Ripk2	C1ra
Ddx60	Icam1	Il4ra	Cd69	Casp3
Lgals3bp	Wars	Pnpt1	Myd88	Cmklr1
Gbp3	Psme1	Dhx58	Psma2	Nfkbia
Irf8	Isg20	Btg1	Pim1	Mettl7b
Psmb9	Irf2	Casp8	Nod1	St8sia4
Pml	Trim14	Ifi30	Cfh	Xcl1
Ifih1	Fcgr1	Ccl12	Tapbp	Il2rb
Ube2l6	March1	Fgl2	Slc25a28	Vamp5
Ifi27	Socs3	Casp7	Ptpn1	Il18bp
Adar	Jak2	Sectm1a	Tnfaip3	Znfx1
Ly6e	H2-DMa	Il15ra	Sspn	Arid5b
Stat2	Parp12	Cd40	Nup93	Apol6
Cxcl9	Tnfaip6	Trafd1	Mthfd2	Stat4

Effector Geneset (GSE9650)	Cdk1	Gng11	Mapk3	Reps1
Nlrp1a	Cdkn2c	Gnpda1	Mapre2	Rfc4
Acot7	Cdkn3	Gzma	Mbd2	Rhpn2
Actb	Chd7	Gzme	Mdfic	Rnf14
Actc1	Commd1	Gzmk	Med12l	Rnf19b
Actn4	Cox17	Haspin	Mis18bp1	Rora
Acyp2	Crip2	Hk2	Mns1	Rps6ka4
Adam19	Cstb	H2-K1	Mrpl27	Rsu1
Agpat3	Ctla4	Hmgb2	Mrps16	S100a10
Ahnak	Ctsa	Hopx	Msrb1	S100a11
Aip	Ctsd	Hoxd13	Mt2	S100a13
Anxa1	Cx3cr1	Hsd11b1	Myo1f	S100a4
Anxa2	Cxcr3	Id2	Ndufa8	S100a6
Anxa6	Dap	Ifitm10	Ndufb6	Sf3b6
Arf6	Dapk2	Ifng	Ndufb7	Sgo1
Arhgdib	Dbi	Il10ra	Ndufv3	Sh2d1a
Asl	Dcps	Il18r1	Nrp1	Sh2d2a
Atpif1	Dennd5a	Il18rap	P3h4	Sirt2
Atp6v0e	Dhrs1	Itga4	Padi2	Smap1
Aurkb	Dkk2	Itgal	Pald1	Smyd1
Batf	Dlgap5	Itgam	Pcyt1a	Snrnp27
Bcl2a1b	Dock5	Itgax	Pglyrp1	Sntb2
Bhlhe40	Dtl	Itgb1	Plscr1	Snx10
Birc5	E2f8	Jak1	Ppib	Spdl1
Bscl2	Elovl1	Kcnj8	Pqlc3	St3gal4
Btf3	Entpd1	Kif22	Prdx4	Stab1
Capn2	Errfi1	Klrc1	Prelid1	Stard10
Capns1	Etfb	Klrg1	Prf1	Tcf19
Carhsp1	Fadd	Klrk1	Prim2	Tmem160
Casp1	Fam89b	Lamc1	Prr13	Tmem37
Casp4	Fasl	Lamtor5	Prrc1	Trappc1
Casp7	Fcgr2b	Lgals1	Psma2	Tspan31
Ccl5	Fcgrt	Lgals3	Psmb10	Tspo
Ccne1	Fgl2	Lig1	Psmd8	Ttk
Ccr2	Frg1	Litaf	Ptgr1	Txndc5
Ccr5	Gabarapl1	Lman2	Ptpn13	Unc119
Cd160	Gabarapl2	Lpin1	Pttg1	Wnt3
Cd48	Galnt3	Lrp10	Rac2	Xdh
Cd68	Gem	Lsm1	Racgap1	Ybx3
Cdc34	Glrx	Lxn	Reep5	Ykt6

Cytolytic Score
Gzma
Gzmb
Prf1

Supplementary Table S3 Primer and oligo sequences used in this study.

sgRNA sequences	
sgTet2 1F	CACCGCGATGGTTGAGGGATCTCGT
sgTet2 1R	aaacACGAGATCCCTCAACCATCGC
sgTet2 2F	CACCGCTGACGGCTGCTTTTACCG
sgTet2 2R	aaacCGGTAAAAGCAGCCGTCAGC
sgIfngr1 F	CACCGCGACTTCAGGGTGAAATACG
sgIfngr1 R	aaacCGTATTTCACCCTGAAGTCG
qPCR primers	
mIfng-F	CGGCACAGTCATTGAAAGCCTA
mIfng-R	GTTGCTGATGGCCTGATTGTC
mCxcl9-F	GAGCAGTGTGGAGTTCGAGG
mCxcl9-R	TCCGGATCTAGGCAGGTTTG
mCxcl10-F	AATGAGGGCCATAGGGAAGC
mCxcl10-R	AGCCATCCACTGGGTAAAGG
mTet2-F	AGAGAAGACAATCGAGAAGTCGG
mTet2-R	CCTTCCGTACTCCCAAACTCAT
m-Actb-F	CATTGCTGACAGGATGCAGAAGG
m-Actb-R	TGCTGGAAGGTGGACAGTGAGG
mCd80-F	GCAGGATACACCACTCCTCAA
mCd80-R	AAAGACGAATCAGCAGCACAA
mCd274-F	AGTATGGCAGCAACGTCACG
mCd274-R	TCCTTTTCCCAGTACACCACTA
mIrf1-F	GGCCGATACAAAGCAGGAGAA
mIrf1-R	GGAGTTCATGGCACAACGGA
mIrf7-F	GAGACTGGCTATTGGGGGAG
mIrf7-R	GACCGAAATGCTTCCAGGG
mIfit3-F	GCTCAGGCTTACGTTGACAAGG
mIfit3-R	CTTTAGGCGTGTCCATCCTTCC
mCd74-F	AGTGCGACGAGAACGGTAAC
mCd74-R	CGTTGGGGAACACACACCA
mKrt19-F	GCCACCTACCTTGCTCGGATTG
mKrt19-R	GTCTCTGCCAGCGTGCCTTC
mKlf5-F	GGTTGCACAAAAGTTTATAC
mKlf5-R	GGCTTGGCGCCCGTGTGCTTCC
mKrt7-F	CGCCGCTGAGTGTGGACATCG
mKrt7-R	CTGGCTGCTCTTGGCTGACTTCTG
hCD274-F	TGCCGACTACAAGCGAATTACTG
hCD274-R	CTGCTTGTCCAGATGACTTCGG
hIRF1-F	GAGGAGGTGAAAGACCAGAGCA
hIRF1-R	TAGCATCTCGGCTGGACTTCGA
hIFIT3-F	CCTGGAATGCTTACGGCAAGCT
hIFIT3-R	GAGCATCTGAGAGTCTGCCCAA
hACTB-F	CACCATTGGCAATGAGCGGTTC
hACTB-R	AGGTCTTTGCGGATGTCCACGT
hMeDIP qPCR primers	
mCd274-F	AACACTAGATACCTAAACTGAAAGCTTCC
mCd274-R	GGCCCGGAGGCGG
mIrf1-F	CTCAATTTCCCAGAGCAGCC
mIrf1-R	CCTCTTTCTGCAGACTCCCA
Genotyping primers	
gIdh1F1	GTCAAAGGCTGGCATGGTATAAT
gIdh1R1	TGGGCTCTATGG ATAACTTCGTA
gIdh1R2	GAGGACCTGAGTAACTCCCTTTT

gKras- 22907	TGTCTTTCCCCAGCACAGT
gKras- 22908	CTGCATAGTACGCTATACCCTGT
gKras- oIMR9592	GCAGGTCGAGGGACCTAATA
gAlb-Cre- 20239	TGCAAACATCACATGCACAC
gAlb-Cre- 20240	TTGGCCCCTTACCATAACTG
gAlb-Cre-oIMR5374	GAAGCAGAAGCTTAGGAAGATGG

Supplementary Table S4 Cell type classification and labeling for calculating differentially expressed marker genes

Cell type	Gene1	Gene2	Gene3	Gene4	Gene5	Gene6	Gene7	Gene8	Gene9	Gene10
M1	*Itgam*	*Ctsc*	*Cd74*	*C1qa*	*Cxcl9*	*Vcam1*	*Cd38*			
M2	*Itgam*	*Lyz2*	*C1qb*	*Folr2*	*Mrc1*	*Arg1*	*Egr2*	*Lgmn*	*Il6*	*Cd74*
MDSC	*Itgam*	*Arg1*	*Fn1*	*Nos2*	*Pf4*	*Il1rn*				
Neutrophils	*Itgam*	*S100a9*	*S100a8*	*Malat1*	*Ly6g*					
Neutrophil-like-monocytes	*Il1b*	*S100a9*	*S100a8*	*Ly6g*	*Ms4a4c*	*Ly6c2*				
Monocyte	*Itgam*	*Ms4a6c*	*Lyz2*	*Il1b*	*Cxcl10*	*Ms4a4c*	*Ly6c2*			
DCs	*H2-Aa*	*Cd74*	*Flt3*	*Cd209a*	*Zbtb46*	*Batf3*	*H2-Ab1*			
pDCs	*Siglech*	*Bst2*	*Ccr9*							
Fibroblasts	*Sparc*	*Cd63*	*Dcn*	*Col3a1*	*Col1a2*	*Plaur*				
Supressive Stroma	*C1qb*	*H2-Eb1*	*Apoe*	*Arg1*	*C1qa*					
Adipocytes	*Cd5l*	*Ctsb*	*Il1b*	*Il6*	*Cd274*					
Endothelial	*Sparc*	*Selenop*	*Pecam1*	*Lyve1*	*Tek*					
MAST Cells	*Srgn*	*Lilr4b*	*Cpa3*							
Tcells	*Cd8a*	*Cd3d*	*Trbc2*	*Cd4*	*Pdcd1*					
Bcells	*Cd79a*	*Ighm*	*Cd79b*	*Cd19*	*Ms4a1*	*Cd22*				
Plasma Cells	*Jchain*	*Igkc*	*Slamf7*							
Nk cells	*Ncr1*	*Gzma*	*Gzmb*	*Klra7*	*Klre1*					
Proliferating Tcells	*Stmn1*	*Hmgb2*	*Top2a*	*Cenpe*	*Mki67*					

Supplementary Table S5 Gene list of HNF4α target genes from TRANSFAC Predicted Transcription Factor Targets

HNF4α target genes	TNFAIP8L2	CMIP	SYAP1
RSPO1	ZBTB42	NARS	SPSB2
CILP	RNFT2	GPN3	PCSK7
PLXDC2	OSBPL5	RAE1	ESPL1
DCN	RAB18	SHANK2	PQLC1
LTF	HIST1H2BL	POLR2D	CLSTN2
CRISP1	COMMD7	RDH11	CSRP2
COL6A5	PROSER2	PXDN	SMARCA5
ACP5	KBTBD6	ALDH3B1	PHF6
ITGB8	UBA7	MARK2	PLAT
ELN	BMP1	ESYT1	LAMC1
CERS4	LYN	MKL2	RPS26
FAIM2	AFP	NDUFB4	NR2F2
MUC1	TXNDC5	SFXN2	MRTO4
FAM83A	JUP	PIP5K1B	KDM5A
PI16	INTU	TNFSF10	MRPL20
TMEM45A	ARHGEF3	EXOSC10	NLE1
MDFI	EPB41L1	PLRG1	SF3B2
IGSF9B	ENDOG	RANBP3	LPAR2
CNTLN	CLSTN1	STK4	RRBP1
LAMC2	RPS6KA4	SSR4	ERC1
EMILIN1	FAM216A	VEGFA	CTNNBL1
SLC36A4	ADAMTS12	EHBP1L1	RAB4B
TMEM229B	MINPP1	ARFIP1	TOMM34
ITIH2	XKRX	CYB5B	RAB3IP
BLK	EXOSC9	OXR1	XRCC5
PPP1R26	ACMSD	DENR	TAB3
CCRL2	VPS26B	CHCHD1	CBX4
CDC42EP3	CSNK1G2	COX8A	RABGAP1
MAN1C1	PLEC	PTPRG	CISD3
IKBKG	ATG4C	HSBP1	BPTF
WNK2	FIS1	TCF20	ENY2
SLC7A7	CYB5R3	LYRM2	FMN1
SLC26A4	ATXN1L	TBL1X	STIP1
PTPRR	MAF1	BAG4	CUEDC2
CRLF1	GTPBP10	RNF103	POGZ
SH3TC2	UBLCP1	TOP2B	ARHGAP21
ESRP2	GNAI2	NUDCD1	BCL3
SERPINA7	FZD4	LINGO1	ERCC1
KCTD21	DMRTA2	ZBTB38	DGKA
TMEM185B	ALDH3A2	SNX12	GAS8
CYTH4	FAM89B	DLD	PITPNM1
ELAC1	ORAI2	RUFY3	NMI
HTR1B	HYAL1	ERCC3	FADS2
ST8SIA4	NCOA1	CSAD	LIF
SCN5A	GEMIN7	GPHN	SMCR8

MALL	STK38L	TMEM175	NFIA
COL18A1	RPUSD1	RCBTB2	DCAF6
NR1H3	HMGN3	CREBRF	ZFP36L1
CNTNAP2	CLPB	TMEM183A	RPL10A
SLC13A2	ME2	SMIM11	SMS
RBP1	TRIM5	PNO1	THSD1
HIST1H3H	N4BP3	ECHS1	KIF11
CDA	CALCRL	MALT1	FASTKD2
AWAT2	HSPA13	MPC2	CDR2L
PSKH1	DNAL4	SLC12A6	ZHX3
GNE	ARHGEF17	SLC9A8	COMP
MYLK	SEC61G	NOD1	ANKRD17
RHBDD2	SNW1	BCAT2	RASD1
RGS16	AP2S1	MCOLN1	NTNG2
CCDC8	ABHD16B	NOL4	STYXL1
GPT	PTPN22	CCDC114	CD46
KIFC2	ODF2L	CHST1	CRYBA1
MAFK	SIRT1	SLC10A1	SLC23A1
CIART	DTL	ARHGEF4	CHRM4
ARID3B	CHD5	COL2A1	MMRN2
TMEM251	COL20A1	FKBP11	IFNE
IFITM5	EFCAB5	TAS1R3	VSIG2
USP37	NR1D2	PLCD4	ACRV1
IRX3	DNASE1	ADRA2A	POU5F2
COL6A2	CUBN	CABP7	PRR29