

Supplemental Table I. Primers used for qPCR

<b>Gene</b>	<b>Sequences</b>
Oasl2-F	TTGTGCGGAGGATCAGGTA
Oasl2-R	TGATGGTGTTCGAGTCTTTGA
Trim21-F	GGGAGGAGGTCACCTGTTCTA
Trim21-R	GGCACTCGGGACATGAACTG
Rsad2-F	TGCTGGCTGAGAATAGCATTAGG
Rsad2-R	GCTGAGTGTGTTCCCATCT
Cd274-F	GCTCCAAAGGACTTGTACGTG
Cd274-R	TGATCTGAAGGGCAGCATTTC
H2-T22-F	GCCTTGGATTTGGATTGTTGC
H2-T22-R	AAGACTCGCCAACTGAAGTTC
Psmb8-F	ATGGCGTTACTGGATCTGTGC
psmb8-R	CGCGGAGAACTGTAGTGTCC
Upp1-F	ACAGGAACTGAAGCAAAGGAC
Upp1-R	GTTGAAATGGTAGAGCACGTCTT
Tap2-F	CTGGCGGACATGGCTTTACTT
Tap2-R	CTCCCACTTTTAGCAGTCCCC
Gbp2-F	CTGCACTATGTGACGGAGCTA
Gbp2-R	GAGTCCACACAAAGGTTGGAAA
Gbp3-F	GAGGCACCCATTTGTCTGGT
Gbp3-R	CCGTCTGCAAGACGATTCA
Igtp-F	CTCATCAGCCCGTGGTCTAAA
Igtp-R	CACCGCCTTACCAATATCTTCAA
Irgm1-F	TGCTCCACTACTCCCCAACAT
Irgm1-R	GCTCCTACTGACCTCAGGTAAC
Irgm2-F	GGCAGTTGAGTCACCTGAGG
Irgm2-R	CCCCTTCTTTCACGGCAGT
Usp18-F	TTGGGCTCCTGAGGAAACC
Usp18-R	CGATGTTGTGTAAACCAACCAGA
Rnf19b-F	AGAAGAGGGTAATGGTGCTGG
Rnf19b-R	GTGATGTCTGGCACGTCATCT
Ifit3-F	AAATTCCAGGTGAAATGGCA
Ifit3-R	TTCCCAGCAGCACAGAAAC
Nlrc5-F	GTGCCAAACGTCCTTTTCAGA
Nlrc5-R	AGTGAGGAGTAAGCCATGCTC
Irf8-F	AGG CTG CAT GAG CGA AGT TC
Irf8-R	CCA TGT ACT CAT CCA CAG AAG GTT
Ifit1-F	GACCTGGTCACCATCAGCAT
Ifit1-R	CAAGGCAGGTTTCTGAGGAG
Ifi35-F	GCTTGCTCCTCCTGAAGACT
Ifi35-R	ACTCTTCACTGCCAACCCCTG

Supplemental Table II. Ingenuity pathway analysis of 77 genes that are IRF8 direct targets identified by CHIP-seq and RNA-seq

I D	Top Diseases and Functions	Score	Focus Molecules	Molecules in Network
1	Endocrine System Disorders, Gastrointestinal Disease, Immunological Disease	37	22	<b>C130026121Rik, DDX58, FBN1, GBP2, GBP4, GBP6, HERC6, Ifi47, IFIH1, IFNB1, Igtf, IRF9, IRGM, LCN2, MAP3K8, mir-155, Mx1/Mx2, NMI, OAS2, PTGER4, RELA, RSAD2, RTP4, SLFN13, SRD5A1, TAPBPL, TIRAP, TMEM173, TNF, TRAFD1, TRIM21, UPP1, USP18, XAF1, ZBP1</b>
2	Antimicrobial Response, Inflammatory Response, Endocrine System Disorders	32	20	<b>CD274, CIITA, CISH, DDX58, GBP2, GBP6, IFI16, IFI35, IFIH1, IFIT3, IFNAR1, IFNAR2, Igp1, IL12RB1, IRF3, IRF5, IRF7, IRF9, IRGM, Irgm1, MAVS, Mx1/Mx2, OAS1, OAS2, Oasl2, PSMB8, RSAD2, SH2B3, SOCS1, STAT2, STAT3, TLR7, TYK2, USP18, WARS</b>
3	Cellular Function and Maintenance, Hematological System Development and Function, Tissue Morphology	28	18	B2M, BMPR2, CCR6, CIITA, CISH, EPHA4, ERAP1, GBP2, GBP7, HLA-A, IFI30, IFNG, Igtf, IL4, IL5, <b>IL12RB1, IL15RA</b> , IRF9, JUND, KDM6B, <b>MOV10, Ms4a4b, NLRC5, PIM1, PNPLA7, POR, SBNO2, SP110, S TAT2, TAP1, TAPBP, TFEC, Tgtp1/Tgtp2, TMEM229B, TNFRSF4</b>
4	Developmental Disorder, Hereditary Disorder, Cancer	2	1	<b>ABTB2, KMT2A</b>
5	Cellular Development, Cellular Growth and Proliferation, Hair and Skin Development and Function	2	1	NFIB, TNS1
6	Cellular Compromise, Cancer, Cell Death and Survival	2	1	<b>ARHGEF3, NFE2L2</b>

IRF8 targets are bolded.