

Supplementary Table S1: Antibodies used in this study

Antibody	Source	Cat No.	Dilution	Application
anti-Beta Actin	Santa Cruz	sc-47778	1:5000	IB
anti-Gcn5	Cell Signaling	3305S	1:1000	IB
Anti-Gapdh	Millipore	MAB374	1:5000	IB
anti-Mouse	GE Healthcare	NA931V	1:20000	IB (Secondary)
anti-Rabbit	GE Healthcare	NA934V	1:20000	IB (Secondary)
anti-B220-APC-Cy7	Biolegend	103223	1:200	FC
anti-B220-Biotinylated	Biolegend	103203	1:1000	FC
anti-CD3-BV605	Biolegend	100237	1:100	FC
anti-CD11b-BV605	Biolegend	101237	1:100	FC
anti-CD19-APC	Invitrogen	50-113-8190	1:1000	FC
anti-CD19-PE-Cy7	BD Biosciences	BD561739	1:200	FC
anti-CD21-APC	BD Biosciences	BD561770	1:200	FC
anti-CD23-FITC	BD Biosciences	BD561772	1:200	FC
Anti-CD43-Alexa fluor	BD Biosciences	BDB561856	1:2000	FC
anti-CD95-PE	BD Biosciences	BDB554258	1:1000	FC
anti-GL7-FITC	BD Biosciences	BDB562080	1:0000	FC
anti-IgD-Alexa flour 700	Biolegend	405729	1:1000	FC
anti-IgD-PE	BD Biosciences	BDB558597	1:100	FC
anti-IgM-Alexa fluor 647	Biolegend	406525	1:100	FC
anti-IgM-APC-Cy7	Biolegend	406515	1:4000	FC
PE-Streptavidin	Biolegend	405203	1:4000	FC (Secondary)

Supplementary Table S2: Primers used in this study

Oligo name	Sequence	Source
mBlimp-1 Fwd	TTCTCTTGGA AAAACGTGTGGG	1
mBlimp-1 Rev	GGAGCCGGAGCTAGACTTG	1
mCcmd1 Fwd	GCAAGCATGCACAGACCTT	2
mCcmd1 Rev	GTTGTGCGGTAGCAGGAGA	2
mCcne2 Fwd	GTGCATTCTAGCCATCGACTCTT	Originally designed
mCcne2 Rev	AGGCACCATCCAGTCTACACATT	Originally designed
mChek1 Fwd	CGTTACTGAACAAGATGTGG	Originally designed
mChek1 Rev	TTATGAAGCAAAGCCAGAGGAG	Originally designed
mE2F1 Fwd	TGGATCTGGAGACTGACCAT	Originally designed
mE2F1 Rev	AGTTGCAGCTGTGTGGTACA	Originally designed
mGapdh Fwd	TGTGTCCGTCGTGGATCTGA	Originally designed
mGapdh Rev	TTGCTGTTGAAGTCGCAGGA	Originally designed

mGcn5 Fwd	CTTCTGTGCCGTCACCTCAA	Originally designed
mGcn5 Rev	TGGTACTCCTTTAGGTGGTTCATCA	Originally designed
mIRF4 Fwd	CCCCATTGAGCCAAGCATAA	3
mIRF4 Rev	GCAGCCGGCAGTCTGAGA	3

Supplementary Table S3: DAVID GO terms of significantly altered pathways

GO ID	GO Name	# of molecules	P-value
GO:0006974	Cellular Response to DNA Damage Stimulus	30	2.8E-10
GO:0007049	Cell cycle	35	2.6E-09
GO:0006355	Regulation of Transcription	76	2.3E-08
GO:0006351	Transcription, DNA-templated	66	4.6E-08
GO:0006281	DNA repair	22	1.9E-07
GO:0006397	mRNA processing	22	2.3E-07
GO:0008380	RNA splicing	19	2.4E-07
GO:0000183	Chromatin Silencing at rDNA	10	4.0E-07
GO:0000122	Negative Regulation of transcription from RNA Polymerase II promoter	33	1.5E-06
GO:0051301	Cell Division	22	2.6E-06

Supplementary Table S4: Egfr Pathway downregulated genes

Genes in dataset	Prediction (based on measurement direction)	Expr Log Ratio
AKT1	Inhibited	-0.447
TOP1	Activated	-0.458
LYAR	Inhibited	-0.467
RANBP1	Inhibited	-0.482
NUDC	Inhibited	-0.5
HNRNPA2B1	Inhibited	-0.5
HNRNPD	Inhibited	-0.529
SDF2L1	Inhibited	-0.538
SRSF1	Inhibited	-0.63
E2F2	Inhibited	-0.659

PABPC1	Inhibited	-0.659
ZEB2	Inhibited	-0.674
HMGA1	Inhibited	-0.677
E2F1	Inhibited	-0.687
CBX5	Inhibited	-0.703
HIRA	Inhibited	-0.733
HSP90B1	Inhibited	-0.838
UBE2S	Inhibited	-0.864
WEE1	Inhibited	-0.893
ACOT7	Inhibited	-0.91
SKP2	Inhibited	-1.05
BCL2L1	Inhibited	-1.371
CCND1	Inhibited	-1.403
IQGAP2	Inhibited	-1.63
VEGFA	Inhibited	-2.233
EPHA2	Inhibited	-2.686
INSM1	Inhibited	-3.897

Supplementary Table S5: Hgf pathway downregulated genes

Genes in dataset	Prediction (based on measurement direction)	Expr Log Ratio
LDHA	Affected	-0.413
SLC9A3R1	Affected	-0.433
AKT1	Inhibited	-0.447
PGAM1	Affected	-0.505
HDGF	Inhibited	-0.531
YWHAH	Affected	-0.567
DYNLL1	Affected	-0.583
CDC25A	Inhibited	-0.59
CDC25B	Inhibited	-0.705
DBF4	Inhibited	-0.81
SMC2	Inhibited	-0.899
KIF20B	Inhibited	-0.908
MAD2L1	Inhibited	-0.972
PLK4	Inhibited	-0.975
SKP2	Inhibited	-1.05
AKAP12	Inhibited	-1.229
CD93	Inhibited	-1.249
HLX	Inhibited	-1.272
FOXM1	Inhibited	-1.339
CDKN2C	Inhibited	-1.346
BCL2L1	Inhibited	-1.371
CCND1	Inhibited	-1.403
CENPF	Inhibited	-1.454

CCNE2	Inhibited	-1.581
VEGFA	Inhibited	-2.233
THBD	Inhibited	-2.467

Supplementary Table S6: Vegf Pathway downregulated genes

Genes in dataset	Prediction (based on measurement direction)	Expr Log Ratio
CASP3	Activated	-0.511
CDC25A	Inhibited	-0.59
MAZ	Inhibited	-0.634
CDC25B	Inhibited	-0.705
DBF4	Inhibited	-0.81
SMC2	Inhibited	-0.899
KIF20B	Inhibited	-0.908
MAD2L1	Inhibited	-0.972
PLK4	Inhibited	-0.975
SKP2	Inhibited	-1.05
AKAP12	Inhibited	-1.229
CD93	Inhibited	-1.249
FOXM1	Inhibited	-1.339
CDKN2C	Inhibited	-1.346
CENPF	Inhibited	-1.454
CCNE2	Inhibited	-1.581
VEGFA	Inhibited	-2.233
THBD	Inhibited	-2.467

1. Mackay LK, *et al.* Hobit and Blimp1 instruct a universal transcriptional program of tissue residency in lymphocytes. *Science* **352**, 459-463 (2016).
2. Wang R, *et al.* Notch1 promotes mouse spinal neural stem and progenitor cells proliferation via p-p38-pax6 induced cyclin D1 activation. *Exp Cell Res* **373**, 80-90 (2018).
3. Yashiro T, Yamaguchi M, Watanuki Y, Kasakura K, Nishiyama C. The Transcription Factors PU.1 and IRF4 Determine Dendritic Cell-Specific Expression of RALDH2. *J Immunol* **201**, 3677-3682 (2018).