

Table S1 54 DGEs and their expression types

Gene	Type
PSMB9	up
CXCL13	up
CXCL9	up
CXCL10	up
IGHM	up
SLAMF8	up
CXCL11	up
IL21R	up
BIRC3	up
IGKC	up
AIM2	up
CD27	up
GBP1	up
IGLJ3	up
TRAT1	up
GZMH	up
CD79A	up
LAX1	up
CD72	up
GZMK	up
TRBC1	up
MS4A1	up
WNT5A	up
KMO	up
PLA2G2D	up
CD19	up
CCL18	up
RASGRP1	up
SLAMF1	up
SNX10	up
FAIM3	up
CD2	up
PIM2	up
ITK	up
CYTIP	up
PNOC	up
RHOH	up
CFB	up
TNIP3	up
LAMP3	up

MAP4K1	up
IGHD	up
CD38	up
GZMB	up
MXRA5	up
CD52	up
GPR171	up
IDO1	up
ISG20	up
SPAG4	up
AKR1B10	down
PDE6A	down
TRHDE	down
CYP4F12	down

Table S2 The regulatory relationship between transcription factors and hub genes

Key TF	Description	# of overlapped genes	p value	Q value	List of overlapped genes
PAX5	paired box 5	2	5.28E-05	0.000158	CD19, CD79A
RELA	v-rel reticuloendotheliosis viral oncogene homolog A (avian)	2	0.0105	0.0106	CXCL10, CD38
NFKB1	nuclear factor of kappa light polypeptide gene enhancer in B-cells 1	2	0.0106	0.0106	CD38, CXCL10