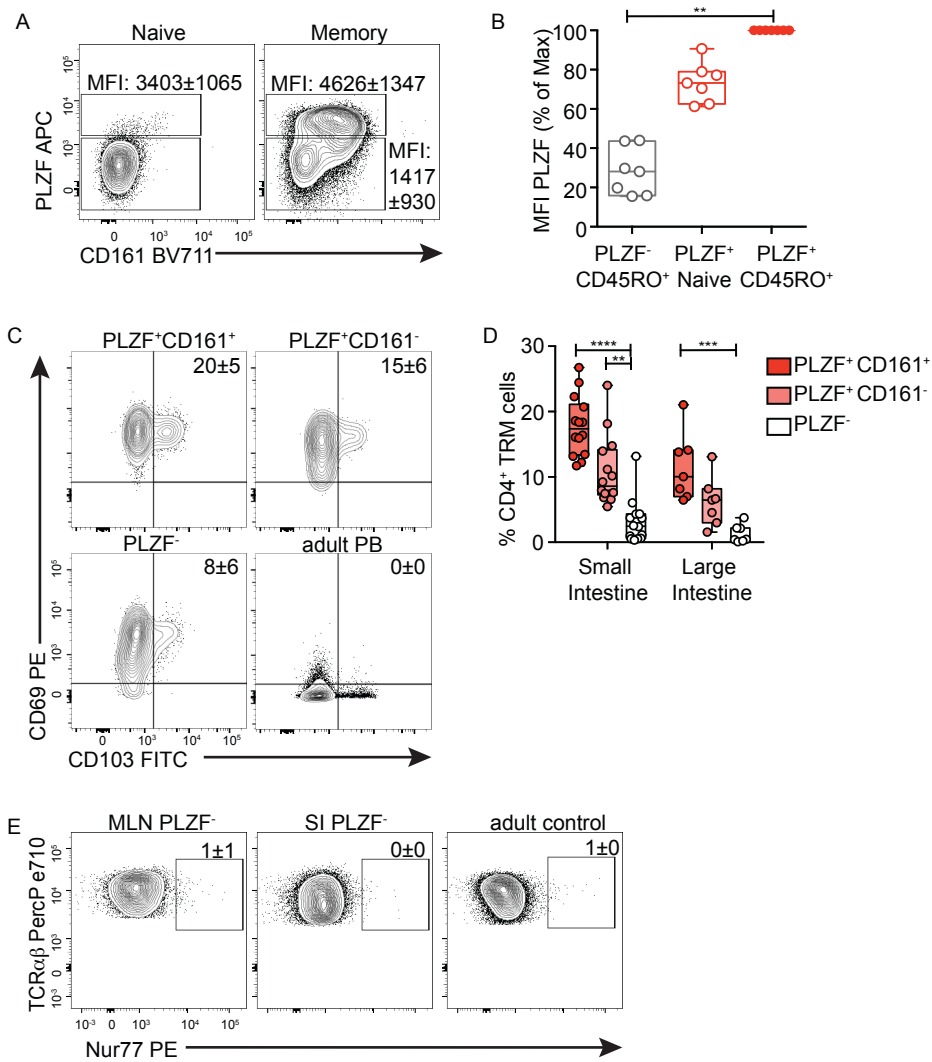
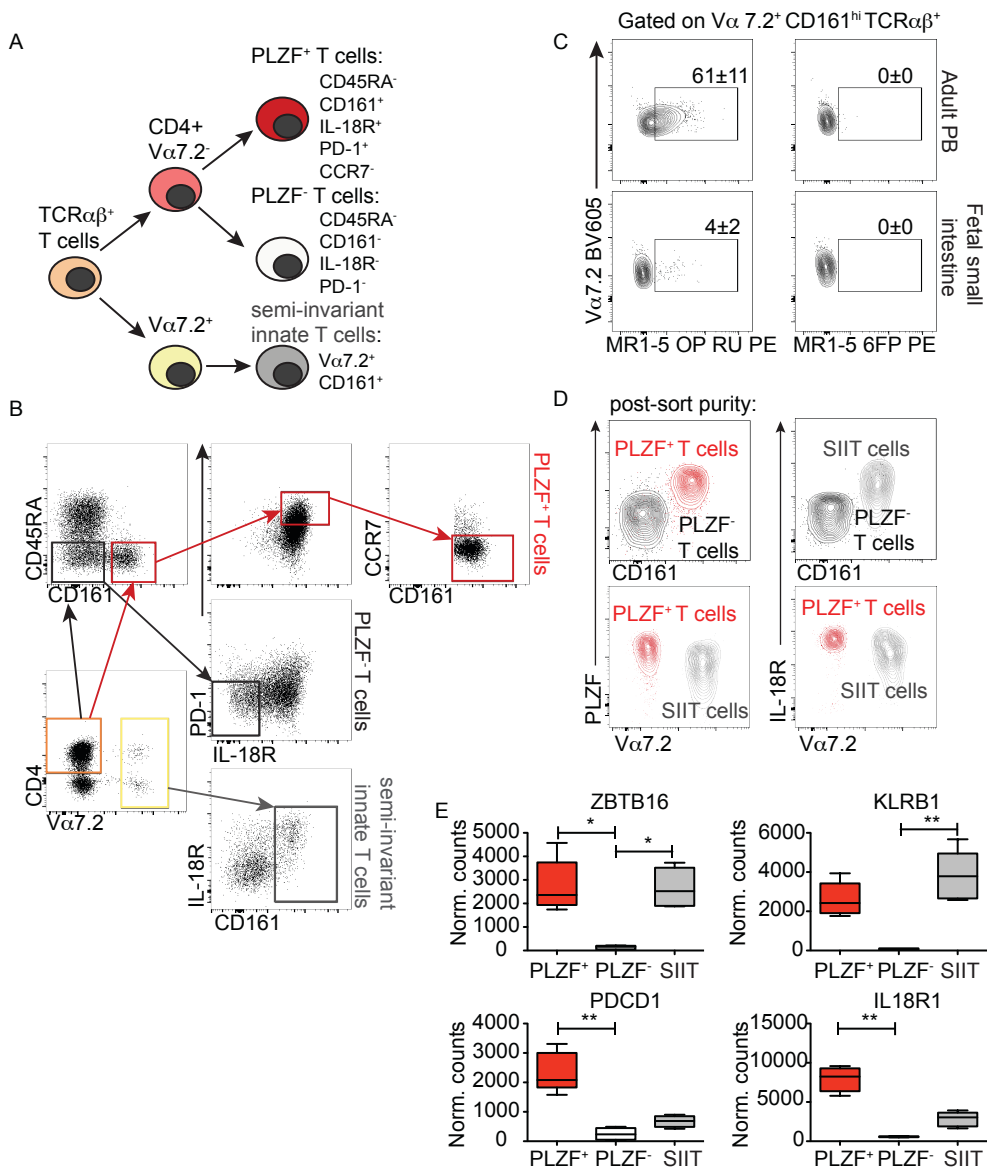


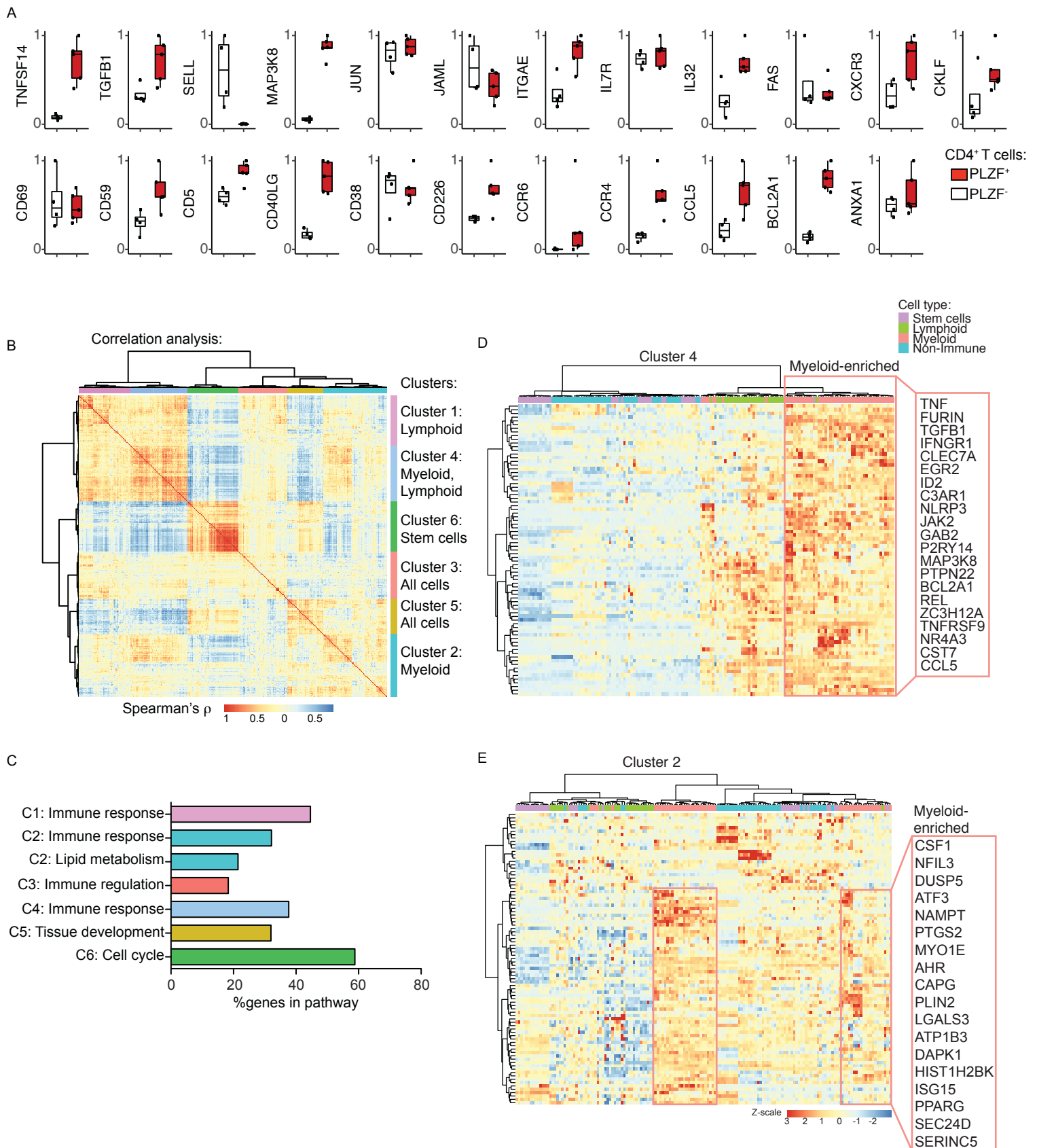
Supplemental Figure 1. Gating strategy for the identification of PLZF⁺ T cells among fetal tissues, representative intestinal sample shown.



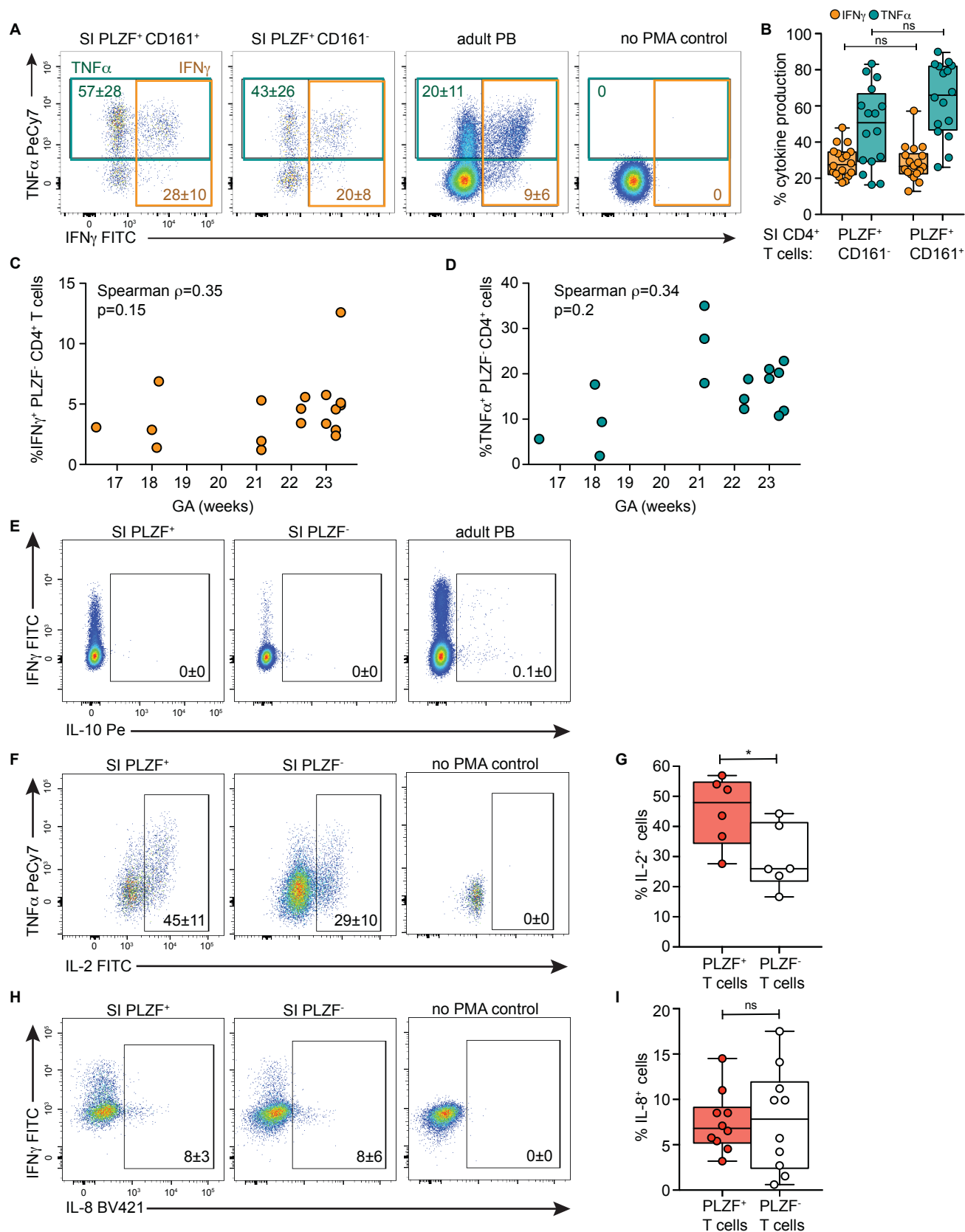
Supplemental Figure 2. Fetal PLZF⁺ CD4⁺ T cells display markers of resident memory T cells. (A) Representative flow plots of PLZF and CD161 staining among intestinal Naive (CD45RO⁻, CD45RA⁺, CCR7⁺) and memory (CD45RO⁺, CD45RA⁻) cells. The MFI (average ± SD) of PLZF is indicated for each population (n=7). (B) Normalized frequencies of PLZF MFI among indicated populations of intestinal V α 7.2⁺ CD4⁺ TCR $\alpha\beta$ ⁺ cells. (C) Representative flow plots of CD69 and CD103 staining among intestinal TEM (CD45RA⁻, CCR7⁻) cells. Gating based on adult PBMCs. (D) Frequencies of resident memory T cells (TRM) (CD69⁺ CD103⁺) among fetal intestinal V α 7.2⁺ CD4⁺ TCR $\alpha\beta$ ⁺ cells. (E) Representative flow plots of endogenous Nur77 expression among PLZF⁻ CD4⁺ T cells derived from fetal SI and MLN compared to adult PBMCs. Numbers in flow cytometry plots represent frequencies of gated populations ± SD. Circles represent individual donors. Box plot whiskers span minimum and maximum, line represents median. Kruskal Wallis paired ANOVA with Dunn's multiple comparison test (B, D). **p < 0.01, ***p < 0.001 ****p < 0.0001.



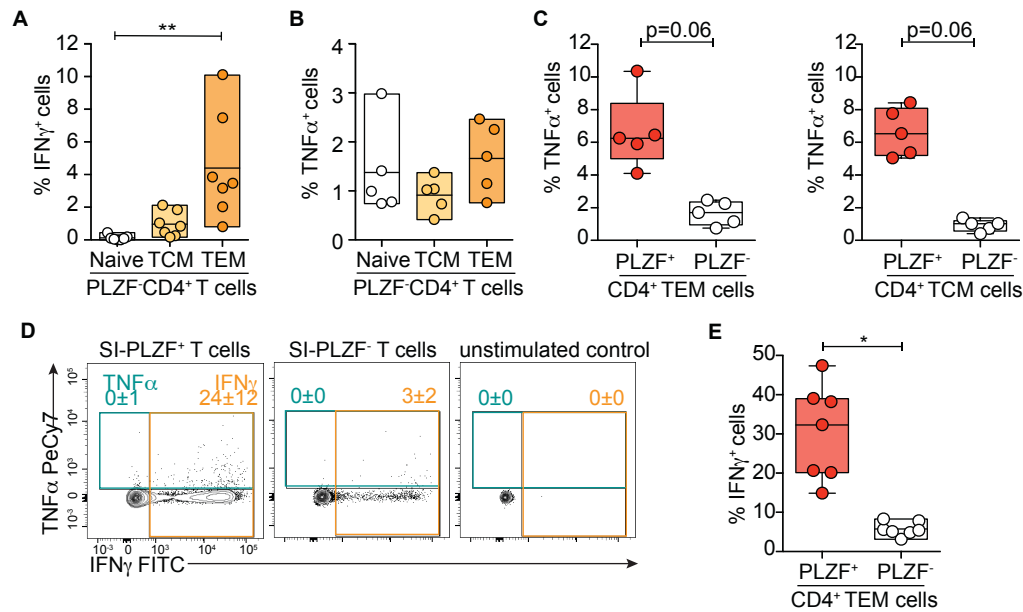
Supplemental Figure 3. Characteristics of sorted fetal T cell populations. (A) Schematic representation of the strategy for the identification and isolation of sorted RNAseq T cell populations. (B) Sorting strategy for PLZF⁺ CD4⁺ T cells, PLZF⁻ CD4⁺ T cells, and semi-invariant innate Va7.2⁺ CD161⁺ T cells gated on live, TCRαβ⁺ intestinal T cells. (C) Representative flow plots of MAIT cell staining of adult PB (n=3) and fetal intestinal T cells (n=7). (D) Representative flow plots of post-sort purity after intra-nuclear staining for PLZF⁺ CD4⁺ T cells, PLZF⁻ CD4⁺ T cells, and semi-invariant innate Va7.2⁺ CD161⁺ T (SIIT) cells. (E) Boxplot quantification of RNAseq normalized read counts of indicated genes among sorted populations. *p<0.05, **p<0.01. Kruskal Wallis with Dunn's multiple comparison test (E).



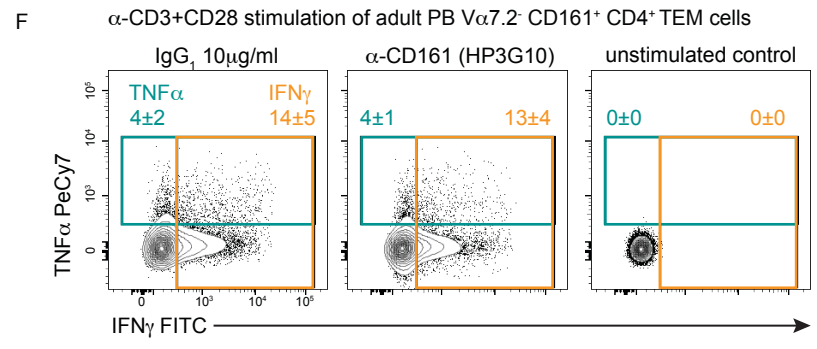
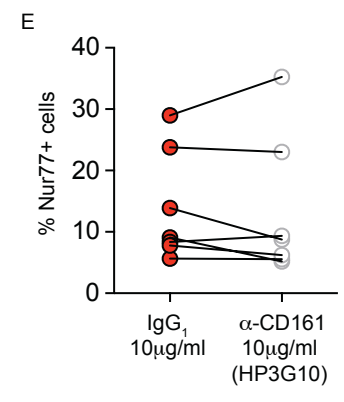
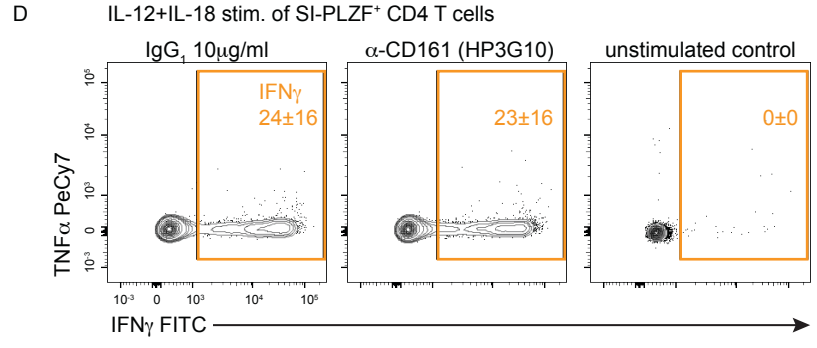
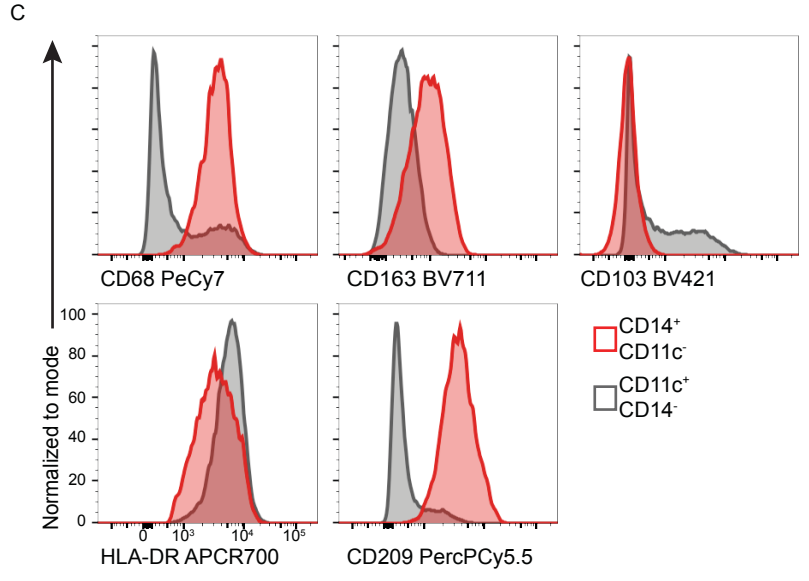
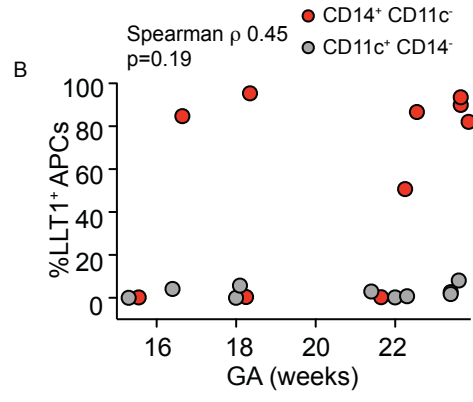
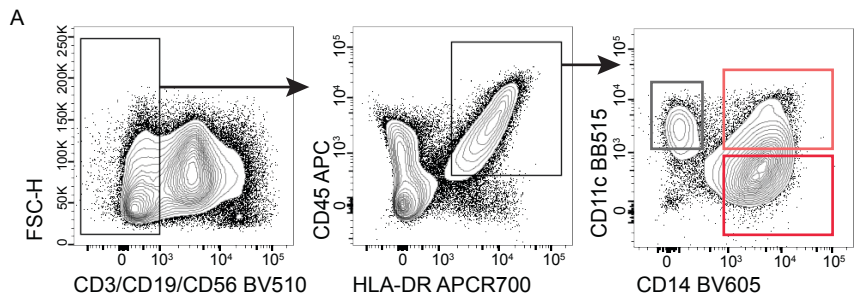
Supplemental Figure 4. Distinct transcriptional signature of fetal PLZF⁺ CD4⁺ T cells. (A) Normalized read counts of selected T cell memory- and activation-associated genes identified by RNAseq among sorted memory PLZF⁺ (red) and PLZF⁻ (white) CD4⁺ T cells. (B) Correlation analysis using the Human Primary Cell Atlas as a reference of the differentially expressed genes (>2 fold, FDR<0.05) in PLZF⁺ CD4⁺ T cells as compared to PLZF⁻ CD4⁺ T cells revealing clusters of genes (C1-C6) that are co-expressed in the same cell types. (C) Pathway analysis of gene clusters identified by correlation analysis (B) was performed and gene pathways were organized into sub-clusters based on shared genes. Bar graphs show the % gene enrichment of each gene pathway within the indicated cluster. (D-E) Heatmap shows color-coded relative enrichment of differentially expressed genes in PLZF⁺ CD4⁺ T cells relative to PLZF⁻ CD4⁺ T cells among indicated cell types identified from the Human Primary Cell Atlas for (D) Cluster 4 and (E) Cluster 2. Selected myeloid-enriched genes involved in immune response and immune regulation are labeled.



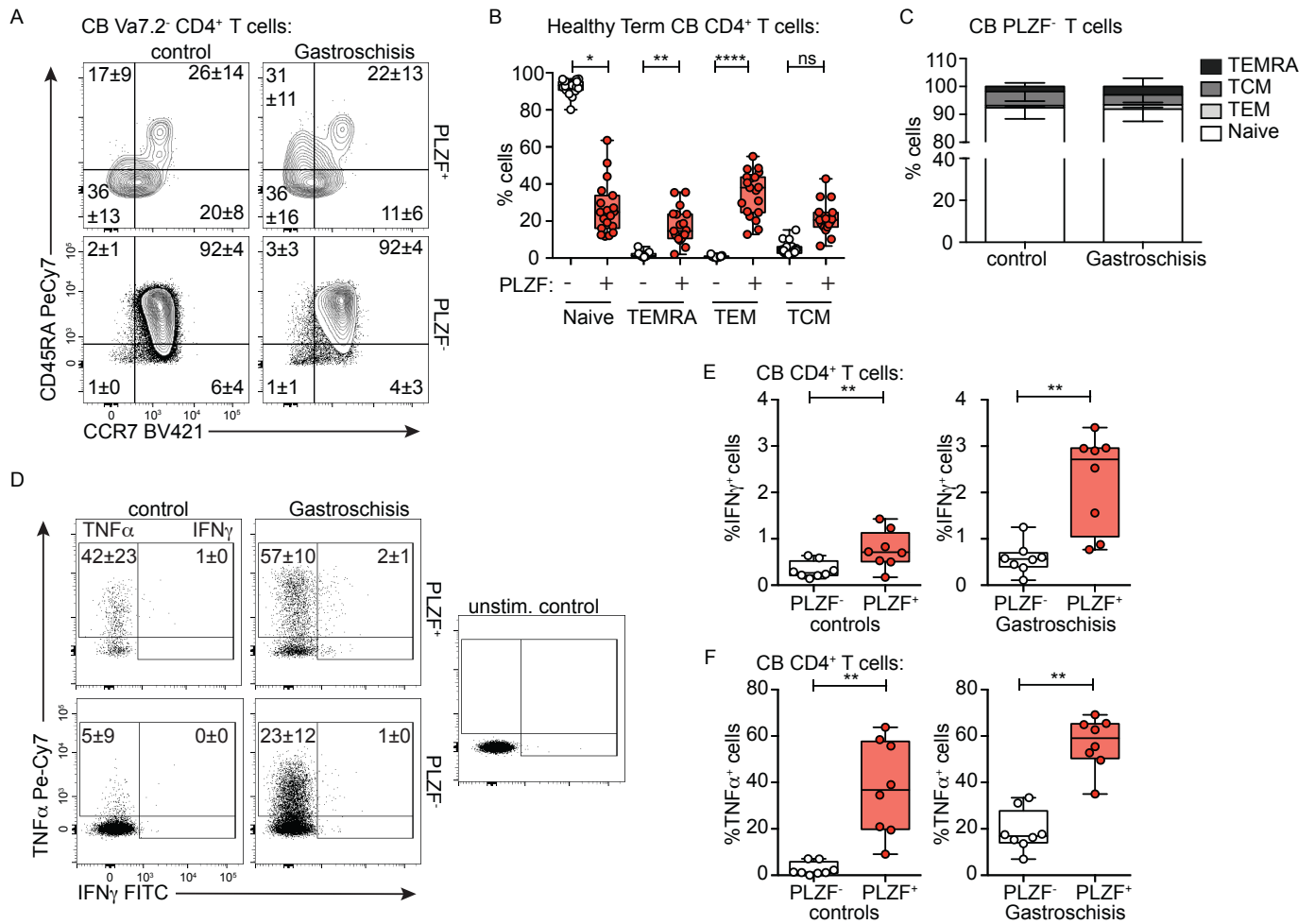
Supplemental Figure 5. SI-PLZF⁺ CD4 T cells are poised for rapid production of Th1 cytokines. All samples gated on live V α 7.2: CD4⁺ TCR α β ⁺ cells. (A) Representative flow plots of intracellular TNF α and IFN γ staining of indicated populations (n=18) after PMA/ionomycin stimulation of small intestine (SI) compared to adult PB CD4⁺ T cells. Gates drawn on unstimulated control. (B) Frequencies of IFN γ ⁺ and TNF α ⁺ cells within indicated populations of SI-PLZF⁺ CD4⁺ T cells after PMA/ionomycin stimulation. (C, D) Association between gestational age (GA) and (C) IFN γ and (D) TNF α production by SI PLZF⁺ CD4⁺ T cells in response to PMA/ionomycin, Spearman's rank correlation. Circles represent individual donors. (E) Representative flow plots of intracellular IL-10 expression after PMA/ionomycin stimulation within indicated populations of SI CD4 T cells (n=5). (F, H) Representative flow plots of intracellular (F) IL-2 and (H) IL-8 after PMA/ionomycin stimulation within indicated populations of SI CD4 T cells. Gates drawn on unstimulated control. (G, I) Frequencies of (G) IL-2⁺ and (I) IL-8⁺ cells within indicated populations of SI CD4 T cells after PMA/ionomycin stimulation. Numbers in the flow cytometry plots correspond to the mean \pm SD of gated frequencies. Circles represent individual donors. Box plot whiskers span minimum and maximum, line represents median. Kruskal Wallis paired ANOVA with Dunn's multiple comparison test (B), Wilcoxon matched-pairs signed rank test (G, I). * $p < 0.05$, ns= not significant.



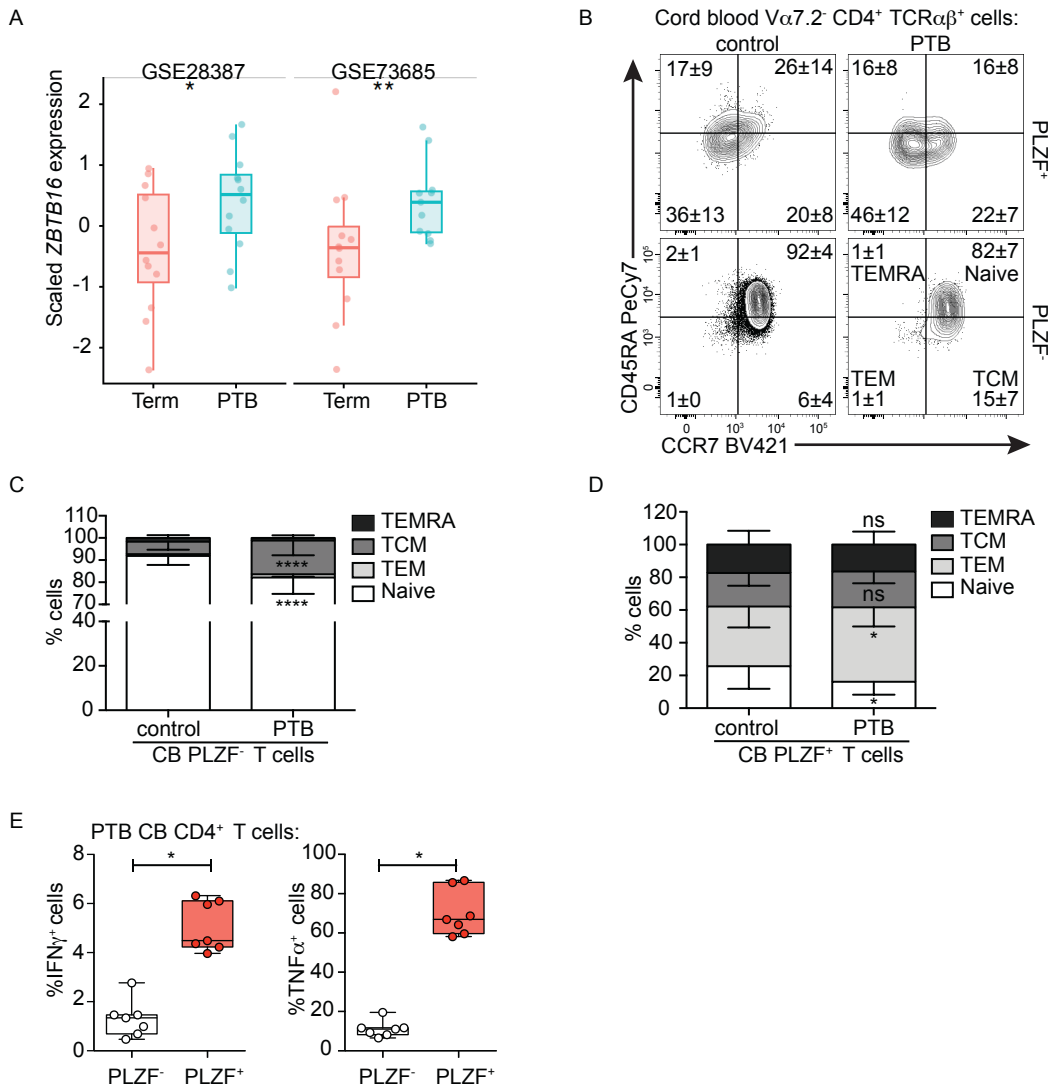
Supplemental Figure 6. SI-PLZF⁺ CD4⁺ T cells produce Th1 cytokines in response to both TCR- and cytokine-mediated activation. (A-B) Frequencies of (A) IFN γ ⁺ and (B) TNF α ⁺ cells within indicated populations of SI PLZF⁻ CD4⁺ T cells after stimulation with anti-CD3 + anti-CD28 for 24hrs. (C) Frequencies of TNF α ⁺ cells within indicated populations of SI-derived TEM (left) and TCM (right) CD4⁺ T cells after stimulation with anti-CD3 + CD28 for 24hrs. (D) Representative flow plots of intracellular staining for IFN γ and TNF α among indicated populations of SI V α 7.2⁺ CD4⁺ TCR α β ⁺ cells in response to stimulation with IL-12 + IL-18 for 24hrs. (E) Frequencies of IFN γ ⁺ cells within indicated populations of intestinal TEM V α 7.2⁺ CD4⁺ TCR α β ⁺ cells after stimulation with IL-12 + IL-18. Circles represent individual donors. Box plot whiskers span minimum and maximum, line represents mean. Wilcoxon matched-pairs signed rank test (A, B) and Mann-Whitney test (C, E). *p < 0.05, **p < 0.01, ****p < 0.0001.



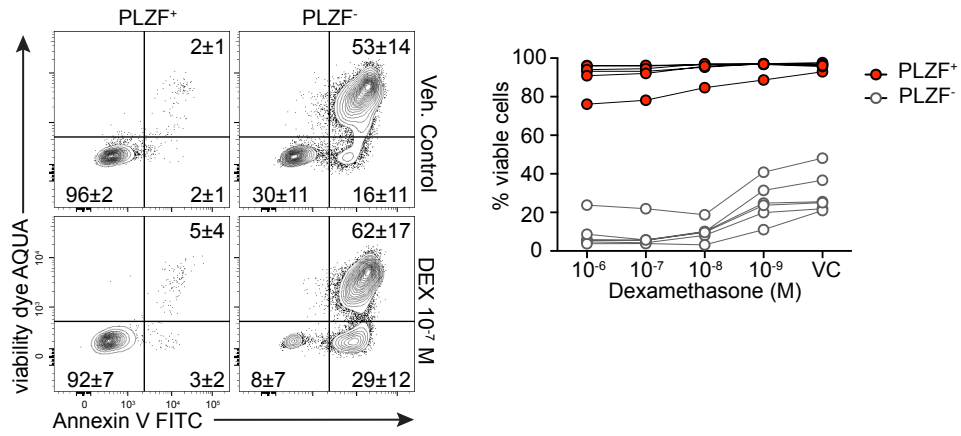
Supplemental Figure 7. Intestinal macrophages express LLT1, the ligand for CD161. (A) Gating strategy for the identification of antigen presenting cells (APCs) in fetal tissues. Cells are gated on live, Lineage⁻ (CD3, CD19, CD56) cells and APCs identified as CD45⁺ HLA-DR⁺ cells. APC subsets are defined on the basis of CD11c and CD14 expression. (B) Association between LLT1 expression by intestinal APCs and gestational age (GA), Spearman's rank correlation. (C) Representative histograms of surface markers in CD14⁺ CD11c⁻ intestinal macrophages as compared to CD11c⁺ CD14⁻ dendritic cells (n= 12). (D) Representative flow plots of intracellular cytokine staining in SI-PLZF⁺ Va7.2- TCR $\alpha\beta$ ⁺ CD4⁺ T cells stimulated with IL-12 + IL-18 in the presence of cross-linked anti-CD161 antibodies or isotype controls. (n=6) (E) Frequency of Nur77⁺ cells among SI-PLZF⁺ Va7.2- TCR $\alpha\beta$ ⁺ CD4⁺ T cells following 4hrs of stimulation with anti-CD3 + anti-CD28 in the presence of cross-linked anti-CD161 antibodies or isotype controls. (F) Representative flow plots of intracellular cytokine staining in adult peripheral blood (PB) CD161⁺ Va7.2- TCR $\alpha\beta$ ⁺ CD4⁺ TEM cells stimulated with anti-CD3 + anti-CD28 in the presence of cross-linked anti-CD161 antibodies or isotype controls (n=9). Gates are drawn on unstimulated controls. Circles represent individual donors. Numbers in the flow cytometry plots correspond to the frequency mean \pm SD of the gated populations.



Supplemental Figure 8. Umbilical cord blood PLZF⁺ CD4⁺ T cells possess greater Th1 effector potential than their PLZF⁻ counterparts. (A) Representative flow plots of CD45RA and CCR7 expression among indicated populations of V α 7.2⁺ TCR $\alpha\beta$ ⁺ CD4⁺ T cells in cord blood (CB) of healthy controls (n=23) and gastrostschisis (n=8) samples. (B) Frequencies of Naive, central memory (TCM), effector memory (TEM), and terminally differentiated effector memory, CD45RA⁺ (TEMRA) T cells among indicated populations of V α 7.2⁺ TCR $\alpha\beta$ ⁺ CD4⁺ T cells in the CB of healthy controls. (C) Frequencies of Naive, TCM, TEM, and TEMRA cells among CB PLZF⁻ CD4⁺ T cells in infants with gastrostschisis (n=8) compared to healthy controls (n=23). (D) Representative flow plots and (E, F) frequencies of (E) IFN γ and (F) TNF α production within PLZF⁺ and PLZF⁻ populations of CB V α 7.2⁺ TCR $\alpha\beta$ ⁺ CD4⁺ T cells in healthy controls compared to infants with gastrostschisis after PMA/Ionomycin stimulation. Numbers in the flow cytometry plots correspond to the mean \pm SD of gated populations. Bar graphs represent mean with SD. Circles represent individual donors. Box plot whiskers span minimum and maximum, line represents median. Mann-Whitney test (B, C), Wilcoxon matched pairs test (E, F). **p < 0.01, ***p < 0.001. ****p < 0.0001.



Supplemental Figure 9. Effector PLZF⁺ CD4⁺ T cells are enriched in the umbilical cord blood of preterm infants. (A) Scaled expression of the gene encoding PLZF (*ZBTB16*) in two independent gene data sets comparing the cord blood (CB) of term to preterm birth (PTB) infants. (B) Representative flow plots of CD45RA and CCR7 expression among indicated populations of $V\alpha 7.2^+ TCR\alpha\beta^+ CD4^+$ T cells in the CB of PTB samples (n=20) compared to healthy controls (n=23). (C-D) Frequencies of Naive, central memory (TCM), effector memory (TEM), and terminally differentiated effector memory, CD45RA⁺ (TEMRA) cells among (C) PLZF⁻ and (D) PLZF⁺ $V\alpha 7.2^+ TCR\alpha\beta^+ CD4^+$ T cells in the CB of PTB samples (n=20) compared to healthy controls (n=23). (E) Frequencies of IFN γ^+ (left) and TNF α^+ (right) producing cells among indicated populations of CB $V\alpha 7.2^+ TCR\alpha\beta^+ CD4^+$ T cells in PTB samples after PMA/Ionomycin stimulation. Boxplots show median (central line), interquartile range (box), 25- and 75 percentiles (whiskers) (A). Numbers in the flow cytometry plots correspond to the mean \pm SD of gated populations. Bar graphs represent mean with SD. Circles represent individual donors. Box plot whiskers span minimum and maximum, line represents median. One-sided Wilcoxon rank sum test (A). Mann-Whitney test (C, D), Wilcoxon matched-pairs test (E). *p<0.05, **p < 0.01, ***p < 0.001. ****p < 0.0001.



Supplemental Figure 10. SI-PLZF⁺ CD4⁺ T cells are resistant to glucocorticoid induced apoptosis. Representative flow plots (left panels) of annexin V and viability dye expressions and frequencies of viable cells (right panel) among SI-PLZF⁺ and PLZF⁻ CD45RA⁻ CD4⁺ T cells cultured in the presence of indicated doses of dexamethasone (Dex) or ethanol vehicle control (VC) for 36hrs. Circles represent individual donors. Numbers in flow cytometry plots represent frequency mean ± SD of the gated populations.

Supplementary Table 1. Characteristics of fetal T cell populations for RNA sequencing

T cell type	PLZF ⁺ CD4 T cells	PLZF ⁻ CD4 T cells	Va7.2 ⁺ CD161 ⁺ T cells
# of samples	5	4	5
Tissue source	Small intestine	Small intestine	Small intestine & MLN
GA (weeks)	22-23	22	22
Sort purity (%) Mean \pm -SD	87 \pm 0.01	92 \pm 0.03	94 \pm 0.04

Supplementary Table 2. DE Genes in PLZF⁺ CD4⁺ T cells vs Va7.2⁺ CD161⁺ T cells

Gene	Log2FC	FDR
GAS8	10.01581985	1.21E-05
TRAV26-1	8.814430989	7.59E-13
TRAV20	8.333782452	1.96E-06
TRAV21	7.063808469	6.04E-13
MYEOV	6.77370463	0.047542937
ADCY6	6.429269334	1.23E-09
MSS51	6.420325736	3.64E-05
FRS3	6.214673112	6.25381E-04
CCDC149	5.631702785	0.014304291
WWC3-AS1	5.483344109	5.09746E-04
LINC01814	5.379573289	0.004717018
PFN2	5.222091647	0.026045555
CDRT4	4.964928173	0.019268641
DMD	4.952881824	0.020520576
IFT43	4.929516169	7.19E-05
GUSBP5	4.902677375	0.045371407
MMRN1	4.856047988	9.06416E-04
KLHDC7B	4.850155884	0.019268641
AC009283.1	4.703164771	0.040810328
LINC01229	4.565746595	8.02E-05
FBXL19-AS1	4.317902201	0.005264555
AC044781.1	4.286583357	4.43E-09
ZNF319	4.117723796	0.005419629
HLF	4.030209517	0.020298534
TRAV17	3.926055709	0.001494983
GNAO1	3.911421971	0.026045555
LRP1B	3.873635194	6.57E-10
SLC6A4	3.772292395	0.049881175
HLA-K	3.743729119	9.94E-05
AC016747.3	3.66817823	0.035099238
ZSWIM5	3.622439575	0.045404893
SLC24A4	3.590119155	0.039189337
TRAV12-2	3.578498905	0.0227905
SCN3B	3.570456559	0.001778164
KLRF2	3.509538681	0.041566854
TMPRSS11E	3.483167791	0.014436405
LPCAT2	3.452116995	8.53E-05

PLAT	3.43291453	0.001522666
ODF3B	3.407088547	0.041566854
AC091185.1	3.400526745	0.046192113
BMF	3.369941763	7.90364E-04
GTF2IP23	3.3395061	0.008765623
AC004593.1	3.309964598	0.02478848
PRR5L	3.305889414	0.033560213
KLHL29	3.238248733	9.32E-10
LINC00892	3.236907741	0.013636345
MIR3142HG	3.227088854	7.12601E-04
RNF165	3.226294705	0.004336233
MTCO2P11	3.171862563	0.012801899
TRAV8-6	3.130975572	0.024873332
GAD1	3.128197144	3.77663E-04
C2orf66	3.127235456	0.001525214
TTC38	3.105787001	0.028713485
CYP2S1	3.099475548	0.017350476
TCAP	3.085653745	0.005311873
CYTOR	3.007046367	0.001932993
C6orf47	2.986838749	0.008480612
ATP9A	2.950214598	0.01671815
DUSP6	2.898197389	7.91E-05
ALPK1	2.859075365	6.84238E-04
PLAC9	2.858649672	0.034195629
CENPBD1P1	2.832898908	0.00108182
C9orf64	2.818751442	0.046955676
EGLN3	2.743045175	0.016818901
BST2	2.70321588	8.97019E-04
TRAV13-1	2.695372688	3.17E-05
LIF	2.693260846	8.53E-05
PTPMT1	2.668473717	0.021270375
CD4	2.617794699	1.21E-05
AC023449.2	2.614588364	0.002607664
RPL23AP55	2.609190175	0.04820469
SAMD4A	2.590802564	0.038714893
CHN2	2.521450565	0.004389233
HOXB3	2.51332424	1.63E-05
MCOLN3	2.502773386	0.007968557
SPART	2.502677265	0.004326857

SMIM3	2.484716459	4.23E-06
NPTX1	2.459541363	0.011474571
C7orf49	2.422824335	0.009768915
H1F0	2.419792543	2.35772E-04
KIAA1549	2.41472096	0.023142236
CYB561	2.402748883	0.031341236
MID1IP1	2.384904452	7.11769E-04
PALLD	2.37310774	9.04E-07
CINP	2.33747779	0.021421304
TTYH2	2.33677165	0.031176216
RTKN2	2.321700837	0.00045943
CDADC1	2.313210368	0.019675057
ZNF395	2.311979957	0.031697098
KIAA1107	2.304996865	0.014896717
PGAP1	2.300859577	3.42388E-04
RIPOR3	2.294236901	0.041671171
CDC42EP4	2.281755056	0.040801796
UBE2F	2.274067717	6.53E-13
ZNF462	2.266674392	9.04E-05
VDR	2.264042186	8.32976E-04
P2RY1	2.255194088	0.014436405
PLA2G16	2.23740614	0.008546397
ESR2	2.219514767	0.001254172
GGT1	2.196062427	0.022806625
TLR1	2.172575292	9.61112E-04
NLRP6	2.128440154	1.01E-05
LXN	2.122515727	0.009793535
DOCK5	2.111749026	1.02E-06
GRAMD1B	2.094829236	2.82E-08
SNX18	2.082552529	0.013126444
CST7	2.076828727	1.12E-05
SLC25A1	2.056474502	0.035243655
ZNF528-AS1	2.042534738	0.042178398
IL2	2.040731993	0.002126244
ASB2	2.03212369	0.004412941
DPY19L1	2.025695441	0.031985485
RCBTB2	1.986461102	0.03291841
CISH	1.974147569	0.022309691
ARID5B	1.970591951	4.86E-19

P2RY14	1.953018896	4.91E-05
SCUBE1	1.946656456	0.048658702
DUSP4	1.935592938	2.39835E-04
PLEKHG1	1.927474074	0.009400153
GAB2	1.927053275	2.98E-21
AL390208.1	1.923882103	0.048683543
LRRC2	1.919810803	0.018001414
DTX1	1.918442078	6.84025E-04
ABR	1.917343965	0.0001162
AFAP1	1.912105609	1.78E-05
NCDN	1.904877674	0.013418405
ARHGEF12	1.903626071	0.005521805
BCL2A1	1.900922167	3.08E-08
AL133406.2	1.892733593	0.007628144
THAP7	1.873816246	0.013592454
VPS54	1.865544299	3.55E-13
ATP13A2	1.827616338	0.001750583
MAP3K8	1.827426214	7.66E-05
LRP6	1.822209162	0.042797748
PHPT1	1.81889843	0.031018226
CD300A	1.811336165	0.019675057
ATXN7L2	1.806631178	0.003786258
PDCD1	1.798317904	0.029557672
CD40LG	1.791625725	2.60E-10
IRAK2	1.791215116	0.013096404
TBCCD1	1.780860984	0.046955676
LRIG1	1.77813719	2.75E-06
GPR137B	1.755314343	0.03797555
TSR3	1.743964818	0.037534487
SOCS2	1.743196208	3.96914E-04
EXOSC3	1.743155032	0.030150516
SLC1A4	1.741573746	2.31966E-04
GRK5	1.741344318	9.47E-34
PRKAB1	1.738384414	1.42375E-04
LPAR6	1.733554288	0.00690225
PLXNA4	1.729183798	0.033305887
SYNE3	1.692694647	0.020211151
DUSP5	1.690242777	0.00260957
INCENP	1.672575297	7.82091E-04

IL18RAP	1.660853557	0.005919817
GLB1	1.657827044	3.27778E-04
AC027031.2	1.657805604	0.038714893
DLL1	1.65682454	1.35E-05
KIAA0040	1.638966347	0.036077961
XCL2	1.633672504	0.032372686
CD274	1.630340302	0.003720721
RALB	1.629340774	0.038714893
PRKAB2	1.628105641	0.009660066
PBX4	1.623857186	0.001995104
UCK1	1.616708486	0.01066676
ZBTB38	1.61193739	0.00653626
SSH1	1.604669235	4.47E-08
UBE2M	1.582902105	0.00523284
ZNF571	1.582411465	0.001302104
HNRNPLL	1.581613001	1.65229E-04
MAMLD1	1.580044746	0.029982203
MFSD5	1.564848175	0.006924519
ITGAV	1.5155935	0.003902073
LINC01871	1.515430174	0.036390225
NT5E	1.498393396	0.042234078
OTUD7B	1.488539744	0.001740296
IL18R1	1.487277504	1.59E-07
ARHGAP21	1.48166889	8.51E-05
SNX11	1.47665699	0.01775243
AHR	1.476178037	0.001256224
EPAS1	1.465748048	9.00E-06
AP3M2	1.459820668	2.00E-10
BTLA	1.450544284	0.037687373
TRMT12	1.438058348	0.025216225
RAB33B	1.421758419	0.003043861
PIGU	1.406355045	0.019505157
AC005332.7	1.404965181	0.026337459
PDHX	1.398150052	0.019492944
SPAG5	1.396491743	0.014560646
TGIF1	1.388272569	5.67525E-04
KLF5	1.380528957	0.040770447
SH3TC1	1.375607887	0.042052955
KIAA1109	1.361465533	4.73E-09

TGFBR3	1.360257594	7.16E-06
ZCCHC2	1.359203267	2.11E-07
TRAT1	1.356413378	2.43406E-04
SLC35A3	1.337298452	0.009400153
HIC1	1.327855713	0.023365383
IL2RB	1.323652319	2.11E-07
PML	1.322234013	0.01071197
ADAM19	1.316259741	2.43406E-04
TESC	1.315119816	0.041969377
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KSR1	1.303706477	0.013737809
CCR4	1.300548366	0.002484828
LINC00963	1.297655804	1.02E-05
RHBDD2	1.287147058	0.002461035
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ZNF552	1.268294341	0.001528616
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STARD4	1.242248929	0.006976169
IL32	1.235455541	0.039138046
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PIK3R1	1.228170543	0.006777556
RB1	1.227367743	0.00523284
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SLC44A1	1.220844698	0.044600123
CPD	1.220829745	1.48E-05
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SYTL3	1.210545779	9.28E-07
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ANKRD54	1.199026262	0.034031449
PLIN2	1.190645879	5.76098E-04
TYW5	1.189897468	0.030901684
CD59	1.189825849	0.005828647
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MAP3K20	1.181280897	0.042346563
ZFP30	1.175193109	0.010574414

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C6orf89	1.169021577	0.015173564
CD5	1.163044968	3.54E-12
DAG1	1.162739578	0.016417145
RPA1	1.160541313	0.023036648
ANXA11	1.158404462	1.21E-05
SMIM15	1.156397828	0.037683756
BAZ2B	1.142958146	1.34243E-04
GLO1	1.135473089	0.007912482
ZER1	1.134165931	0.049549313
EPST1	1.131373255	0.01459934
PXK	1.12488539	0.001686289
FADS3	1.113446283	0.021137958
TAB2	1.110370467	2.64E-05
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ARAP2	1.101276605	0.019505157
RAB5B	1.10026813	0.005688474
BAG4	1.094437026	0.038714893
CLECL1	1.086550816	0.037143946
FAAH2	1.085030368	0.004665155
TMEM9B	1.0846513	2.25088E-04
RHBDF2	1.083666672	0.033023588
TAF5	1.082584585	0.041563856
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TNIP1	1.079404523	0.006265044
SPPL3	1.073826951	0.004895356
RASGRF2	1.070757581	0.001814669
AKAP11	1.067169872	0.010814313
SFXN1	1.066740823	0.004624188
ATP1B3	1.063162408	0.031176216
CARS	1.058638509	0.003265702
CASP8	1.057049793	0.002447011
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GALC	1.034623743	0.034195629
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PDCL3	0.990646619	0.005723534
SERPINB1	0.989506452	0.045569492
TRAF6	0.988102686	0.043118943
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ASAP1	0.979490039	0.001970944
GARS	0.979272874	0.001188768
DYNC1LI2	0.972172917	0.004156913
FURIN	0.968808533	0.031547362
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SPPL2A	0.955403299	0.004418532
KLHL2	0.950598759	0.034668244
ENOSF1	0.945224973	0.009354116
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SEC61A2	0.941737277	0.045371407
CTSB	0.938935674	0.039467373
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PRDX2	0.923124798	0.022324017
PLXDC1	0.922146122	0.049265389
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STX17	0.920489848	0.016067832
APP	0.91774908	0.022758198
BCL2L11	0.917087314	0.027959084
IFITM3	0.915819321	0.011767411
SGTA	0.915735036	0.035992345
DEGS1	0.914920216	0.030980316
RFX7	0.911259454	0.023647493
TBL1X	0.908049108	0.010149136
GATA3	0.906854231	0.014631438

IQGAP2	0.900978495	0.016562656
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GLIPR1	0.888326178	6.43602E-04
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FBXL5	0.882463997	0.016281202
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KLHL18	0.83761285	0.046988638
DENND4C	0.837007228	0.006349755
MAFG	0.836923091	0.011767411
SMS	0.836738329	0.03797555
CRIM1	0.8360761	0.001094011
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FGFR1OP2	0.828310575	0.004773213
EXOC5	0.827389263	0.015424678
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TMEM2	0.822961356	2.37124E-04
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PLEKHG2	0.815454706	0.020520576
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IMP4	0.772267544	0.005228879
NCOR2	0.769283397	0.032717256
ST3GAL1	0.768591037	0.024443896
FYN	0.767962032	4.26245E-04
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AUTS2	0.763209606	0.002484828
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TLK1	0.751467582	0.006349755
PFKFB3	0.750363547	0.003933521
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STAM	0.718865396	3.29522E-04
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PCNX1	0.705484339	0.046955676
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IL17RA	0.673691273	0.034493792
ANKFY1	0.673617878	0.037092202
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KCMF1	0.669541556	0.023102629
ETV6	0.665075815	0.046834287
THAP2	0.66349554	0.045890886
GAPDH	0.651550806	0.012714824
CD6	0.649083164	0.024925937
CHMP4B	0.638149412	0.003137756
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OPA1	0.584978066	0.042178398
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DAZAP2	0.580116625	0.010123325
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ARFGAP3	0.566493256	0.043228749
USP15	0.559819798	0.01928532
CTDSP2	0.557473348	0.027505356
SPTBN1	0.545957094	0.041399658
SMURF2	0.540261107	0.044441236
PHF12	0.534221753	0.003044514
ABI1	0.518158129	0.017052827
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FBXL20	0.451388093	0.006288875
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TMED2	0.335803454	0.035199958
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PELI2	-1.296534315	0.015424678
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GIMAP7	-1.340570919	3.24291E-04
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NDUFS2	-1.378093374	0.005561547
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LTA4H	-1.390813084	3.49E-07
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HSPH1	-1.447780618	0.022684784
SLC4A10	-1.458332412	0.020137915
BIN1	-1.468489225	0.010176265
VCL	-1.471252536	0.04820469
FUT8	-1.472625758	0.046678726

BIN2	-1.47393909	6.26328E-04
OGDH	-1.475114454	0.00072801
ANK1	-1.479116699	0.048995923
NPIP11	-1.480818332	0.021907533
SNHG15	-1.481267741	5.83E-09
TUBA4A	-1.486218846	4.76158E-04
CU639417.2	-1.504492946	0.031018226
PSMG3	-1.507564672	0.028429602
MAST3	-1.516573038	0.035590314
MAP3K4	-1.516602402	0.02515865
ZNF22	-1.518408117	0.002974036
AC112491.1	-1.522187956	0.037903368
USP3-AS1	-1.540900664	0.009354116
DIP2A	-1.541422765	8.92E-09
TLE4	-1.542332776	6.12E-10
CNN2	-1.549274806	0.006349755
BCL9L	-1.550804819	1.04E-06
PITPNM1	-1.557375037	0.002544075
HIBCH	-1.579483397	0.001253359
RPS6P25	-1.59050327	0.040707972
RBL2	-1.598634625	5.27E-07
CTNNA1	-1.59907069	0.004999463
SH3BP2	-1.609388362	0.002041651
LINC00649	-1.611102877	0.017613662
NPM1P39	-1.615221154	1.73949E-04
NOSIP	-1.615706225	0.00037664
IL21R	-1.617096307	6.10E-05
ST6GAL1	-1.620245791	0.010574414
AIF1	-1.620333282	2.51765E-04
LDLR	-1.624105062	0.008979503
PPT1	-1.627103811	0.001528616
ADGRA3	-1.635748673	0.002709826
RASSF3	-1.641294645	0.028185017
MCM10	-1.665104346	0.024873332
RBM38	-1.668014901	1.05E-05
ZNF273	-1.670826156	0.038045397
GIMAP4	-1.672152906	0.007349886
HNRNPA1L2	-1.682096272	0.045371407
CAPN2	-1.702296873	3.08E-05

AXIN2	-1.705430504	0.010149782
USP3	-1.712961867	4.42E-12
MAGED1	-1.71494716	0.013499718
ZCCHC10	-1.716699597	0.021177788
MZF1-AS1	-1.7172842	0.020947211
TMEM63A	-1.726499924	2.82E-08
IKZF2	-1.728151269	6.66E-10
SKIL	-1.728639276	4.35E-13
SUSD4	-1.761468238	1.62E-20
TXK	-1.761581987	3.92078E-04
C16orf54	-1.768396548	0.001459776
HSPB1	-1.782439566	0.001514536
LYPD3	-1.808136861	2.23E-10
EPB41L2	-1.808201648	0.001417549
CDH23	-1.809054651	0.001703358
SLC16A10	-1.815106441	0.005847269
AQP3	-1.817038939	0.001239152
HIST1H4E	-1.821169875	0.041714496
TBC1D10C	-1.834052532	0.032717256
MYO1G	-1.838880828	0.0017261
APOL3	-1.847206561	1.72E-08
RNVU1-19	-1.869098842	0.001784906
CCM2	-1.87728473	0.020520576
KLRG1	-1.882382596	0.003733439
HADH	-1.897806315	0.001747766
PLEC	-1.906786713	2.04E-08
CCDC146	-1.912331629	0.009978795
LYRM4	-1.915984537	0.002769011
TM7SF2	-1.918334394	0.023271147
ZNF496	-1.926333703	1.06989E-04
APOBEC3G	-1.928581919	0.009045978
RASD1	-1.937639204	0.013526516
ABHD3	-1.942819938	0.00985195
NNAT	-1.951812536	0.001591791
SEC14L1	-1.961430627	2.55E-19
CDC25B	-1.96490278	6.13E-08
DNAJB1	-1.983200013	8.65062E-04
CCDC125	-1.998876456	0.011617003
CCDC34	-2.005985655	0.025450848

SAMD3	-2.006197077	0.00410829
METTL23	-2.006705842	8.07769E-04
TNFSF9	-2.028397867	0.040259907
C18orf32	-2.031753283	0.018638839
S100A4	-2.039585153	2.20E-07
LIAS	-2.043629446	1.24303E-04
ATP8B2	-2.044684204	0.033560213
EGR3	-2.061199153	0.041114253
A2M	-2.066901916	0.005639386
EPOP	-2.068600135	0.023157373
CASC15	-2.076012282	0.032389446
NFKBID	-2.093310668	0.010336476
TENM1	-2.095910159	2.13E-09
LFNG	-2.098924145	0.046206737
C12orf75	-2.10039619	0.040982509
TPST2	-2.106396213	0.035199958
EPHA4	-2.119304122	1.12E-06
AC131212.2	-2.127647443	0.049549313
ITGA6	-2.151057386	4.15361E-04
ANKRD18EP	-2.159176506	0.003929486
MFGE8	-2.167004249	3.86E-08
RRNAD1	-2.175573465	0.018552587
RASGEF1B	-2.181507145	0.001253359
ADCY7	-2.193990235	0.020128291
ESPL1	-2.195674883	0.023365383
ETFRF1	-2.208603581	0.009964285
EPHX1	-2.238994308	0.020545478
CORO2A	-2.246874335	0.01063676
PLCG1	-2.265986924	6.76E-06
PXN	-2.274114934	3.60E-15
AC132192.2	-2.313199152	0.027959084
TOB1	-2.324779106	1.23E-14
MVB12B	-2.325455268	3.92E-05
PCED1B- AS1	-2.329910108	2.31E-07
ORC1	-2.33604032	0.026028817
CCRL2	-2.350400255	0.002110782
SEC14L2	-2.351036446	9.07074E-04
S1PR1	-2.362298185	2.09E-10

ZNF815P	-2.364903691	0.032878577
GAL3ST4	-2.375927121	0.028106448
EFHC1	-2.384652334	0.016333993
SOX6	-2.384859973	0.009246993
CTNND1	-2.391825133	0.023855174
IQSEC1	-2.404209449	4.91E-18
HSD17B10	-2.412099367	0.00035383
CLDN15	-2.417387207	0.004773213
TLR5	-2.426574536	0.003425143
HSPA1A	-2.427073659	0.026711635
LEF1	-2.443523549	2.54E-06
MYOM2	-2.447840939	0.042865278
AC004847.1	-2.456685891	0.007455848
NREP	-2.472893164	0.02947269
ABCC4	-2.52920232	0.002769251
NUCB2	-2.554921005	5.59727E-04
TRABD2A	-2.564828822	0.017342458
RNU6-790P	-2.568433986	0.027101561
NBPF9	-2.569084907	4.59E-05
NDRG4	-2.575456167	0.032725021
AP4S1	-2.593540245	2.31E-07
ZC3H12B	-2.607147132	0.03498508
GRASP	-2.611156867	1.12E-05
GZMK	-2.612171508	1.35E-05
TAPT1-AS1	-2.6124154	0.008882297
CD248	-2.620146327	0.009737966
DHX58	-2.65770817	0.008368901
TRAJ2	-2.664805764	0.021907533
MHENCR	-2.667430884	0.02757122
DPEP2	-2.691784208	0.004219495
LRRC8C	-2.705015697	2.83E-09
TRBV7-9	-2.705868657	0.005021011
FAM169A	-2.712517599	1.02178E-04
RARA	-2.712801148	4.18E-06
TRBV9	-2.72280551	5.99E-13
CEMIP	-2.734866848	0.009959911
GAA	-2.75628043	0.021310154
ENC1	-2.786827984	4.82E-05
SYTL1	-2.834337835	1.19E-05

ZRANB3	-2.837455465	0.049265389
AC022916.1	-2.845405722	0.004418532
MYH3	-2.853609322	0.004353586
SWSAP1	-2.888575983	0.012500933
FBXO4	-2.902564513	0.001290639
TOP2A	-2.90908368	6.92E-08
AC020916.1	-2.914025921	1.42E-09
MCM2	-2.927765427	5.28E-06
TLE1	-2.938752978	1.04305E-04
AEBP1	-2.995400695	0.002161594
ZHX3	-2.995869895	7.83686E-04
IGSF9B	-3.003445	1.40E-08
AC005070.3	-3.008297253	0.007726846
ROBO1	-3.103809461	0.001166408
DEPDC7	-3.105331757	0.001417549
KIAA1328	-3.10653494	0.012993501
Z82206.1	-3.113129479	0.020520576
ALDH16A1	-3.115300538	3.34E-07
AC022239.2	-3.116373113	0.00752584
C20orf27	-3.127617529	0.002041651
NELL2	-3.149685887	1.60226E-04
TUBB2A	-3.156152729	4.83E-15
LST1	-3.190950776	5.67E-07
CTTNBP2NL	-3.192253969	0.032389446
RAD54B	-3.210469394	0.021778111
A2M-AS1	-3.212885031	7.19E-05
DCHS1	-3.22636025	2.91883E-04
TBC1D24	-3.240190684	0.015431885
AREG	-3.247531714	0.004722628
GALNT12	-3.261066355	0.032596862
LTBP4	-3.275760613	8.90917E-04
ENPP1	-3.28694603	0.022758198
RMI2	-3.354411879	0.043484839
PRKAR1B	-3.374929764	1.42375E-04
KCTD12	-3.380863427	0.010705667
NAPA-AS1	-3.411373864	0.00900041
DBN1	-3.439125606	0.003079012
SNX30	-3.450700466	9.16E-05
UBXN8	-3.460922117	0.006976169

EOMES	-3.468251691	0.022851646
CHEK2	-3.504029748	0.014602903
MUM1	-3.505226335	7.40447E-04
CDCA7L	-3.50908957	1.60226E-04
ZBTB46	-3.521115313	0.006288875
GATB	-3.537951472	0.004326479
EPHB6	-3.542632594	0.001932993
PLCB4	-3.561708772	0.035489516
AC011498.7	-3.597162035	0.03386567
QRSL1P3	-3.612372628	0.005699098
AL591895.1	-3.683762268	1.20E-09
AC116407.2	-3.692188453	3.65061E-04
FLT3LG	-3.72776577	0.0048542
DBP	-3.738866805	3.85266E-04
ACTN1	-3.739300951	0.005561547
TMEM9	-3.742843943	0.013866681
SCART1	-3.775326071	2.88E-05
CAPN5	-3.824309907	9.04085E-04
SERPINE1	-3.836445196	0.001535774
IL21R-AS1	-3.854818941	0.004207018
PFKFB2	-3.906583607	4.96E-13
CRTAM	-3.926739014	1.05061E-04
AC105046.1	-3.944649792	2.35772E-04
ARHGEF40	-3.98398823	0.031291195
COL6A3	-4.016012499	0.031451768
AC006449.6	-4.022475915	0.013809816
KLF2	-4.054853615	1.79496E-04
GCA	-4.073837193	0.003116153
SAMD12	-4.109056611	0.022324017
VPS9D1- AS1	-4.178266475	0.002183919
RNU6-94P	-4.184256854	0.040726232
AL031846.1	-4.2101089	0.028286987
FLT1	-4.29838274	4.91E-18
AC116552.1	-4.320418604	0.015424678
SGIP1	-4.43023322	0.008844203
YBX3	-4.513975734	3.25E-43
DPPA4	-4.577061993	2.25975E-04
AC137932.2	-4.583503772	0.022732199

BLK	-4.586977623	0.001177638
MIR4697HG	-4.588024217	1.05563E-04
GRK3	-4.612923765	2.25375E-04
IL23R	-4.613185116	3.91E-06
KLRA1P	-4.640764265	2.58E-05
AC027449.1	-4.674174513	0.014381859
AL355581.1	-4.808370069	6.53E-05
EGFL8	-4.809501967	0.002240947
AP002360.2	-4.849758911	0.01850536
AC080112.4	-4.958332815	7.19E-05
TRBV6-4	-4.98341653	0.004723627
AC012146.1	-5.029466164	0.001442124
UACA	-5.046737462	0.006424968
RNU6-1043P	-5.048843963	5.71038E-04
FAM57A	-5.057005632	0.02904921
CCL3L3	-5.1310113	0.002148492
KLRC4- KLRK1	-5.155098893	0.002148492
CCR7	-5.186539819	2.91E-15
EPS8	-5.219281415	9.91363E-04
MEX3A	-5.241267244	0.005561547
ARRDC5	-5.307091289	0.025179362
FAM174B	-5.318094881	1.16733E-04
LEF1-AS1	-5.351419765	6.68E-07
COL6A2	-5.436250169	2.28E-16
PDE3A	-5.573696684	0.033508069
IQSEC3	-5.789140847	9.27613E-04
FSD1	-5.894428776	2.23E-06
CYP2E1	-6.010347379	0.001604957
SBK1	-6.042240409	1.11E-05
SEMA4A	-6.05137694	0.002727709
JAKMIP2	-6.107670472	1.24129E-04
EFNA1	-6.179918855	1.19E-05
TNFRSF21	-6.231404844	9.92E-18
PTPRS	-6.254034701	0.016818901
ELOVL4	-6.290418467	2.77E-05
FSCN3	-6.404411509	0.001253359
KLRK1	-6.486416385	4.02E-07
C7orf31	-6.675050788	7.55373E-04

MAP2K6	-6.794375432	1.46E-05
S100B	-6.852041938	6.95E-13
MRC2	-6.93333747	2.56E-14
S1PR5	-6.949086613	4.33E-07
NBEA	-7.091773814	4.76158E-04
EPHB3	-7.099084632	9.11297E-04
AC022075.1	-7.132198338	1.12014E-04
AC022239.3	-7.212173565	1.42E-09
FGR	-7.239666023	0.006758301
AL138689.1	-7.427880218	4.71E-06
IL11	-7.435033286	5.36E-10
SH3RF2	-7.444926158	2.18405E-04
N4BP3	-7.509590725	8.04E-09
CD8B	-7.515089335	7.17E-06
PPP1R2P9	-7.561748748	1.06E-05
ANAPC1P1	-7.720820358	2.74024E-04
SLC23A3	-7.928067157	7.06E-05
SCRG1	-8.051234759	1.18831E-04
AC080038.3	-8.094957596	0.001149904
VCAM1	-8.287131265	2.29E-07
SELL	-8.31095405	1.36E-29
RAP1GAP2	-8.384873212	2.33E-07
BEND5	-8.443830677	9.17E-08
KCNQ3	-8.50080766	1.68E-08
MYCBPAP	-8.524685637	2.00E-05
LRP1	-8.562300429	0.005423769
PCSK4	-8.56878381	1.61E-05
AMOT	-8.583012941	4.27167E-04
EVA1C	-8.603583416	1.03E-06
SPACA9	-8.627957196	7.79E-05
ADGRA2	-8.684164136	7.48E-07
KCNJ12	-8.724915418	4.55E-05
CPXM1	-8.820781555	5.27E-06
ABCG2	-8.92076333	5.01555E-04
OR10G2	-8.945508325	1.72E-05
DAB1	-9.274339175	2.00E-10
PLK1	-9.389035734	6.66E-10
AC022239.4	-9.426619507	6.92E-11
VWCE	-9.609801224	1.50E-10

WNT11	-9.739984458	8.78E-17
C11orf21	-9.791822508	1.30E-20
MEOX1	-9.798028552	2.54E-11
ITGAM	-9.855358803	2.58E-18
FBLN2	-9.895469479	2.04E-06
CPA5	-10.11610716	0.004027474
PRL	-10.15077553	1.61E-06

Supplementary Table 3.
DE genes in PLZF⁺ CD4 T
cells vs PLZF⁻ CD4 T cells

Gene	Log2FC	FDR
LINC01229	11.05731919	1.79E-12
HPGDS	10.90455916	1.18E-09
SLC24A3	10.81358114	1.44E-06
HLF	10.47219303	2.63E-08
FSTL4	10.46364765	1.86E-07
AC013460.1	9.725997443	9.50E-08
CLEC7A	9.113193993	9.14E-10
ALK	9.09415451	0.001244471
LINC00271	8.998395845	2.16E-05
RNF165	8.637605117	8.72E-15
IL1RL1	8.590333696	1.03E-09
FERMT2	8.559745087	5.48E-22
CLEC12A	8.28336145	4.73E-07
PPARG	8.164717253	2.36E-08
PHEX	7.861263723	6.90E-06
AC007278.1	7.557432289	1.34E-35
PLXDC2	7.241518942	1.55E-13
LIF	7.040804908	9.31E-29
AATK	6.8106639	4.92377E-04
AC131097.1	6.738390687	4.02768E-04
MCM10	6.715909242	1.71E-09
KIFC3	6.665448213	6.18E-06
FAM181A-AS1	6.612987329	9.74891E-04
SLC4A10	6.581140932	4.87E-33
SKA1	6.575225095	1.66E-08
MATN2	6.554012373	6.67E-08
CLU	6.529841837	0.02668374
SKA3	6.39805602	7.71E-05
ADCY6	6.357528	1.28E-08
HIST1H1A	6.336983985	0.00031833
GZMB	6.30653733	0.003628732
CPNE7	6.264543829	0.009505332
COL24A1	6.234514177	0.013041643
XPNPEP2	6.231572418	3.13599E-04
MAFTRR	6.193783449	0.00339651

CCL25	6.171738195	3.73056E-04
IL18RAP	6.005377187	4.87E-33
LGALS3	5.963528241	4.07686E-04
C17orf53	5.860138435	8.12522E-04
TGFBI	5.850506923	6.67E-08
DIAPH3	5.826680058	1.37E-06
AURKB	5.768998119	0.00011596
ENPP1	5.764008097	2.48E-05
AL031736.2	5.709557643	4.02E-13
MND1	5.666788524	5.19755E-04
LINC00892	5.610420845	2.70E-06
PRR5L	5.58128309	6.74E-05
CREB3L3	5.433998466	0.022793132
AL109613.1	5.432227973	0.04731046
TNFRSF9	5.388301932	3.38E-08
KIT	5.354314561	5.38E-18
C10orf128	5.331309211	2.38E-07
E2F2	5.313477885	6.56E-07
AC007278.2	5.277207994	0.001428117
GAL3ST2	5.268857019	5.59E-06
WWC3-AS1	5.215813531	0.001779452
NGFR	5.209147245	0.035513074
XCL1	5.082218524	7.47E-11
KLRB1	5.07681092	1.63E-40
SCN3B	5.034363482	5.08E-06
IL411	5.026553883	1.81E-08
GUCY1A3	5.019997426	1.01E-05
ASB2	4.921496898	2.80E-15
FSD1L	4.92146507	0.020684075
EGLN3	4.899664023	1.69E-06
PTGS2	4.878489024	5.21E-06
IRX3	4.745256133	0.002974895
RNU6-1280P	4.706175768	0.011670015
CKAP2L	4.705210102	1.81E-05
PIK3AP1	4.633968912	3.10E-05
GAD1	4.618520213	5.13E-08
ATP9A	4.616796096	4.27E-05
ZNF319	4.560102814	0.002646053
AL358933.1	4.464039978	0.005234633

NLRP3	4.420970525	2.86313E-04
CDRT4	4.403287361	0.049244741
ZBTB16	4.365921027	2.18E-11
IL17RE	4.354898482	0.007025162
RGS3	4.328105821	1.03949E-04
HIST1H4C	4.315675427	0.002021692
SCRN1	4.28528544	4.27E-05
ZFYVE9	4.265055519	0.006848067
AL136988.2	4.2589987	0.020639532
CCDC168	4.246401852	0.021084679
AC087286.2	4.228048074	0.021996139
CCNA2	4.22128911	1.05E-05
AP002518.2	4.193812232	0.016675337
CENPW	4.177271342	1.55E-06
SAMD4A	4.157981778	2.34087E-04
LINC01871	4.154141171	1.38E-12
MCOLN2	4.128749703	0.038763949
KIFC1	4.126144102	1.90E-10
MMRN1	4.057254931	0.013310412
VCAN	4.055812367	0.027775575
EFCAB8	3.991050766	7.55371E-04
CAPG	3.976789477	1.60E-11
TP53I11	3.975529475	9.38E-05
SMOX	3.969654906	6.28E-07
MAP3K8	3.944471768	2.00E-20
SMIM4	3.943246536	0.003248816
ZSWIM5	3.937462003	0.033678984
ALOX12P2	3.91937386	0.036573875
LINC00598	3.88819291	0.049336643
DTX1	3.886459974	3.85E-14
IL13	3.854099102	0.001277054
FBXO10	3.823123955	0.001003112
XCL2	3.799128896	2.23E-09
IL18R1	3.794365351	8.53E-45
CST7	3.788878856	4.28E-17
NKG7	3.780314255	2.11E-11
TTC7B	3.772581234	0.007008106
FASLG	3.767844732	0.00036214
RRM2	3.763170936	2.40E-05

CFH	3.762817093	0.009947906
PHF5CP	3.747000518	1.44899E-04
MFSD2A	3.723508325	0.013194342
TTC39C-AS1	3.694915865	0.004149032
AC012467.2	3.679829506	0.003679452
DUSP6	3.665469474	5.88E-07
CHN2	3.640540946	1.43E-05
DLL1	3.614258304	3.94E-24
AC002306.1	3.611064986	0.005234633
E2F8	3.595217898	0.007275339
DTL	3.544473961	8.03203E-04
B3GALT2	3.510151245	0.005170099
COLQ	3.50387831	0.002728423
TRPC3	3.479518773	0.020026039
IFNG	3.474096904	3.97E-06
EXO1	3.422144681	0.011529976
P2RX5-TAX1BP3	3.408165575	0.017463346
AL137186.1	3.404540589	6.62189E-04
C1orf216	3.393749569	0.035958217
TOGARAM2	3.389787223	1.82419E-04
RUNX2	3.387591708	1.17E-08
SLC6A20	3.35714815	3.38E-08
DUSP5	3.343285006	3.63E-11
ATP8B4	3.325961748	0.012982137
C3AR1	3.322534168	0.001010851
RPL23AP55	3.319917632	0.0124767
GAB3	3.306517904	8.41E-09
BUB1	3.30261254	0.016304314
SPRY2	3.293460397	0.0381835
DOCK5	3.268066104	1.59E-14
MBOAT2	3.265305779	8.90E-05
TROAP	3.262406601	0.03329217
PDCD1	3.258678204	6.25E-06
FAH	3.226832622	4.29181E-04
ZEB2	3.219790015	1.03E-05
NUF2	3.213826372	0.005853273
DUSP4	3.212593392	1.02E-10
NCAPH	3.170110539	0.027420645
TNFSF14	3.144719237	1.07E-15

SNX18	3.109226851	6.80E-05
BIRC5	3.094416625	0.006466351
B3GNT5	3.094037124	2.05E-06
MCOLN3	3.092730226	8.45902E-04
WDR76	3.083023721	0.004377859
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CSF1	3.066136185	1.04E-05
NEURL1	3.004479915	0.029360674
HIST1H2BH	2.96230299	7.09781E-04
IRAK2	2.936982543	7.50E-06
PALLD	2.928489099	2.52E-09
PXMP2	2.922534907	0.029003465
YWHAH	2.922497673	2.16E-09
MYBL2	2.907916957	0.01668567
FAM53B	2.89735015	4.39041E-04
CCNI2	2.889765227	0.028091808
MIR4435-2HG	2.88350824	0.020484749
MMP9	2.876660884	0.014899929
TMEM107	2.87635331	0.003248816
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AC092139.1	2.85622207	0.019223527
IRF8	2.838068061	9.52E-06
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CD160	2.816775161	0.005396678
TMPPE	2.776792339	4.06E-05
IL2	2.773988315	1.63E-05
AC064801.2	2.760622869	9.81E-06
CENPUP2	2.758552588	0.005037604
AL390208.1	2.750205915	0.003012627
GZMK	2.745551988	2.42E-05
NLRP6	2.744832445	1.34E-08
PHLDB1	2.726132792	0.046604063
FAM111B	2.717343573	0.037601076
ARHGAP18	2.699653136	4.98E-05
ASPM	2.697401345	1.71059E-04
ANK1	2.695615755	4.05E-05
LINC01534	2.674031422	0.049936043
IFNGR1	2.670951059	1.74E-10
CRIM1	2.641932195	1.19E-32

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COX6CP1	2.634689208	0.02434592
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TEX29	2.575550042	7.50E-05
HIST3H2A	2.573158819	0.044677332
CDK6	2.560738801	1.48862E-04
RIPOR3	2.557703113	0.025327145
BCL2A1	2.544615267	2.33E-13
LRP1B	2.540930538	4.77078E-04
PLCXD2	2.536035657	1.61E-06
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HOXB3	2.503976752	5.02E-05
CACNA2D4	2.491344905	0.003892706
RORA-AS1	2.478860348	0.041816603
NFIL3	2.472325023	0.005902333
MAF	2.463672375	9.92E-08
GAB2	2.463105625	5.04E-32
P2RY14	2.457912062	3.40E-07
FES	2.441756427	0.002084617
OTUD7B	2.422114155	7.96E-08
HIRA	2.409548102	0.02650885
ADAM19	2.407007194	6.00E-13
CDC6	2.401140192	0.00155075
MID1IP1	2.378127935	0.001351606
ACTN4	2.366359661	1.30E-17
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GYG1	2.356151739	2.02E-11
B4GALT5	2.344569471	0.004888276
ITM2C	2.32767427	0.001677211
AC010326.3	2.326689231	0.042167593
KNL1	2.326174822	5.95456E-04
SCART1	2.319835763	0.042045762
NRIP1	2.317392744	2.27E-11
NPTX1	2.297794631	0.029456578
SPART	2.294929899	0.016537549
DHCR24	2.287203079	0.02240471
CELF2-AS1	2.284956007	0.031084919
AC115618.1	2.282553887	0.047705579
CD40LG	2.280265164	3.68E-15

GRAMD1B	2.2580185	9.82E-09
BIVM	2.244869437	0.008668012
ESR2	2.242722726	0.001965314
MYO1E	2.24253695	0.002403429
AC015911.3	2.239966365	0.038466379
U1	2.237008952	0.049856041
AF127577.6	2.22895269	0.04548352
KLHL29	2.225241951	2.33485E-04
LZTFL1	2.186294695	1.12E-06
E2F1	2.18266422	0.025220293
PTTG1	2.167820328	7.30018E-04
TMEM64	2.166737033	0.014050067
SLC41A1	2.164477461	1.19806E-04
PLA2G16	2.142495076	0.019177706
S100A4	2.121805866	1.58E-06
C17orf67	2.121025368	0.017361701
RASGRF2	2.118504141	9.52E-12
RCBTB2	2.114755526	0.027281279
LPAR6	2.109037064	8.77658E-04
DAPK1	2.09230542	0.008828946
ATF3	2.092168864	0.010240062
LINC00513	2.085009221	0.023851291
SCUBE1	2.078093478	0.041213599
CCR4	2.078019248	2.32E-07
PRKCE	2.06210201	0.00046083
SPAG5	2.058281483	1.04887E-04
ID2	2.050933468	1.60E-11
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CLSPN	2.049217237	0.042167593
GSTP1	2.037243615	0.006367135
TYMS	2.026373902	2.54E-07
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LY6E	2.012991181	2.58566E-04
SLC1A4	2.009789943	2.76E-05
PRR7	2.005517912	0.031292853
IL12RB2	2.002393703	3.63788E-04
SVIL-AS1	1.990540208	0.003146115
ERN1	1.986159954	1.59E-05
GLB1	1.984764785	1.80E-05

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PBX4	1.96453625	1.77876E-04
CPD	1.964129675	5.97E-13
NPC1	1.954851779	1.47E-05
PLXNC1	1.949621916	8.44E-07
MXRA7	1.948387001	0.005512987
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CKS2	1.939983398	0.013310412
GLO1	1.936130342	6.28E-07
HDAC10	1.93415522	0.02434592
TRGC1	1.918348408	5.11E-08
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SLC25A25	1.910458897	0.004981823
LMO4	1.903991071	1.52E-05
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HCST	1.898392261	1.82805E-04
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ID3	1.870528268	0.018476472
AL390719.1	1.859873269	0.007309302
IRS2	1.852241764	1.34E-05
AC091814.1	1.84671764	0.03263946
RGS2	1.844945513	0.00590284
CASZ1	1.840489853	4.67924E-04
KIF11	1.835603782	0.014673472
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RAB11FIP1	1.811613223	0.004049983
PLXND1	1.806876062	0.026796435
PHC1P1	1.79760223	0.005838235
PRMT9	1.788192992	2.14E-07
AMPD2	1.786699171	3.49E-10
GPR137B	1.772165889	0.046278703
RAB8B	1.768812452	1.23E-09
EGR2	1.766420532	0.002781665
GMNN	1.764527554	8.79356E-04
MFHAS1	1.755297824	0.001257489
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TRPV2	1.746220108	0.043344561
TIAM1	1.745755384	0.001297752

CCR9	1.745038102	0.001600916
SLF1	1.734415209	0.012420425
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NAMPTP1	1.728276195	0.022128576
INSIG1	1.719676013	4.73E-07
PHLDA1	1.718784082	0.02240471
MEGF9	1.713037941	0.042270736
MPZL3	1.68517059	2.03005E-04
PGAP1	1.663795246	0.028362535
KIAA0040	1.651319189	0.044646237
BAK1	1.643089022	2.68E-05
SPATS2L	1.640889421	0.026852753
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RORA	1.636631322	1.69E-05
TTC39C	1.63604219	1.31E-11
NFAT5	1.635566007	1.35E-05
SESN1	1.631793782	0.020639532
KLHL17	1.625120838	0.037025662
CRY1	1.623435585	3.85E-13
CCL5	1.618495392	6.98253E-04
SLC4A2	1.614566966	0.012281854
TMED8	1.610403245	0.014999745
ARL4A	1.609051225	0.005902333
CXXC5	1.608238561	0.024824608
PHACTR2-AS1	1.598811071	0.040776961
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PDE4A	1.597499083	1.93097E-04
ZNF552	1.591030643	6.04E-05
TNF	1.589113116	0.020890105
HIST1H2BK	1.585945663	1.32E-08
FURIN	1.584798785	7.84E-05
PIK3R1	1.571956406	3.67569E-04
NAMPT	1.571620093	2.45659E-04
TRGC2	1.566106671	6.16653E-04
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HNRNPLL	1.558132109	4.60686E-04
CELF2	1.552365651	1.61872E-04
RPS6KA5	1.548926304	0.022972064
ATXN7L2	1.539602951	0.027744659

PRKAB1	1.536219478	0.002201265
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ARHGAP21	1.526523147	1.07318E-04
TSC22D1	1.524960001	0.035396238
ATP1B3	1.519320746	8.77432E-04
PRKAB2	1.514643211	0.026746326
SERPINB9	1.513639283	2.61E-06
PLIN2	1.511244701	1.01E-05
LAPTM4B	1.51074718	0.035396238
TRGV10	1.506272052	2.85611E-04
VSIR	1.494957389	0.003874334
ORC6	1.49147227	0.024064159
POLR2L	1.472767766	0.0239638
UBE2Q2P1	1.472263869	0.043378011
ZNF462	1.466822315	0.038601103
KIF3B	1.459164464	0.002853663
TESC	1.45355237	0.027231616
NDRG1	1.45321875	1.57E-05
PRC1	1.445832473	0.016946965
ZNF571	1.435799356	0.007676839
REPS1	1.433523869	3.57E-07
PRKX	1.423729413	0.028091808
WWC3	1.42135557	0.027775575
DENND3	1.415741191	0.0381835
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EBNA1BP2	1.406919921	1.89491E-04
SSH1	1.404632377	1.08E-05
GNA15	1.392178239	0.047375832
IL32	1.37789157	0.023390166
EPAS1	1.376821078	9.92E-05
TRAF4	1.373846065	5.18E-05
STOM	1.371342864	0.037542439
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SFMBT1	1.351251102	0.04544674
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VRK1	1.334911949	0.014898055
SRGN	1.334766677	2.25E-08
CD63	1.33292643	0.011955367
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GAPDH	1.31934899	6.46E-09
ANXA11	1.316166221	1.31E-06
ACAA2	1.308958783	0.007937582
IL2RB	1.30297757	1.46E-06
ZNF331	1.300846722	0.011137774
MIR22HG	1.299038665	1.76E-05
HSPD1	1.295470347	1.39428E-04
CCDC69	1.285703874	0.049839407
PITPNA	1.283237337	0.023390166
REL	1.28189003	0.009268449
GFOD1	1.276490868	0.029360674
C15orf39	1.273750392	3.33269E-04
STK24	1.269583565	1.99E-05
TRAF6	1.268456436	0.007010542
FADS3	1.268125574	0.009041148
LRIG1	1.266794912	0.004227078
ZBTB39	1.2661172	0.048829022
WEE1	1.265899033	0.001832888
MGAT4B	1.260449196	0.035958217
GALNT3	1.256609509	0.025222339
AHR	1.2527915	0.014673472
ISG15	1.252337875	0.018808713
JAK2	1.246547284	0.009469268
SLC7A5	1.245932503	0.00774738
H2AFX	1.244215194	0.025362166
TRAT1	1.243202861	0.001932887
MYO1F	1.242997906	0.034247363
ZCCHC2	1.225802413	1.48E-05
DNAJC1	1.223458584	0.039401616
PARP14	1.218289939	0.024812326
ITGAE	1.215351934	0.008862705
SMS	1.212981543	0.001112354
DNAJC25	1.211932158	0.026215687
GNAI3	1.208875018	1.05306E-04
RHEB	1.204134391	0.019025164
CLDND1	1.20156245	0.001097933
ALDOA	1.193385699	2.05E-06

SELENOT	1.192830344	0.001928383
C18orf8	1.186420346	9.21E-06
DCTD	1.183102139	0.009947906
CCNH	1.173522909	0.025375155
NR4A3	1.167851016	0.024419393
UBC	1.162976437	4.18E-07
AMZ2	1.161243033	0.003183449
DYNLT3	1.158711517	0.003213599
B4GALT1	1.156149453	2.97E-13
PTPN22	1.155982382	2.05085E-04
ZMIZ1	1.151058179	5.75E-05
SEC24D	1.149121729	0.005744698
ARAP2	1.148876122	0.019154926
MAN2A2	1.138779014	0.003496982
CMTM6	1.138352831	0.006029949
SDF4	1.137306636	0.02922908
TMEM2	1.132975299	2.20E-07
ARHGDI A	1.132056097	0.00314121
FOXO3	1.130434908	0.034154454
CXCR3	1.129524944	0.029916225
CD59	1.125471545	0.015863849
SMAD3	1.124898276	0.041474744
SERINC5	1.119138039	0.004021682
GATAD2A	1.118242261	0.00304873
PPP1R16B	1.118157733	1.67E-08
LPAR2	1.1160427	0.013940063
EAF1	1.112045858	0.036629704
C19orf60	1.110575376	0.017361701
GDE1	1.108046668	0.016304314
SYNE2	1.102789775	0.001089673
ARHGEF7	1.10247934	3.40E-08
TSPYL2	1.101823264	0.003277779
SLC6A6	1.095259789	0.018427544
PRDX1	1.09481395	0.002433683
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BTBD9	1.089953076	0.015295274
SELENOW	1.08769165	0.029916225
TIPARP	1.086129828	3.33195E-04

TAGAP	1.081726403	0.004823188
EPSTI1	1.081290205	0.029584566
PRDX6	1.081145633	0.008246723
NCOA7	1.079871311	1.45988E-04
PFKFB3	1.079119934	1.24E-05
FNBP1	1.077675575	1.87E-06
HSPE1	1.077673713	0.013371251
CREM	1.076832254	3.17138E-04
PHACTR2	1.075647526	0.007939337
HDLBP	1.07559142	1.00E-05
PGGHG	1.074188753	0.010962851
GRK5	1.071309111	2.44E-11
SPRY1	1.066234985	0.010181077
TRIM39	1.062875035	0.043397663
FGFR1OP2	1.060581246	2.11854E-04
RNF19A	1.060308314	0.007010542
SUN2	1.059426529	0.002047737
KCTD9	1.05772571	0.036108174
DAGLB	1.049584551	0.034892601
CASP7	1.04806256	0.023185624
SSBP3	1.047577307	0.022236101
TMEM9B	1.040262435	0.00089946
PELO	1.037982287	0.02434592
DPP4	1.033923111	0.009684626
HMGB2	1.033115844	6.82916E-04
CNOT2	1.028129621	0.020829652
IFITM3	1.025348652	0.005480943
PDCL3	1.020613258	0.006562535
DDX24	1.019180352	2.92E-05
IFITM2	1.019006019	0.014025866
FLNA	1.018537222	0.019437756
CYB5R3	1.013467879	0.003216091
EPG5	1.007846998	0.009505332
PREX1	1.002058869	0.001078319
PSMD12	1.000829781	0.006523927
GATA3	0.99746546	0.008566015
CDK9	0.986964526	0.015692621
TNIP1	0.986045738	0.022681083
OPTN	0.981324672	1.83E-05

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CTSC	0.973860995	0.030033786
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ATP2B4	0.96908751	0.031932551
TESK1	0.967203223	0.005001989
SH2D2A	0.964655858	0.009711927
TOR1B	0.960351026	0.020454839
CITED2	0.959264599	0.013141497
MYO5A	0.958304831	0.003607767
SLC9A3R1	0.955640004	0.032651941
PIP4K2A	0.954392902	0.041101249
GNG2	0.952314543	8.43025E-04
UBE2K	0.948050601	2.11E-05
ITPR3	0.947375268	5.24262E-04
PRKAR1A	0.946163071	8.80234E-04
CHMP4B	0.944947744	3.83E-06
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EZR	0.94098151	0.00353697
RAB5B	0.939984901	0.035262123
CD226	0.938805533	0.029303806
BCL2L11	0.937662339	0.031098096
AUTS2	0.932431303	2.00215E-04
NIP7	0.923256529	0.043449692
KLHL18	0.917499582	0.033014506
TACC1	0.915022623	0.004557466
MSN	0.912989771	5.09E-05
COTL1	0.90558794	0.010103061
SLC3A2	0.904868619	2.18E-08
RANBP2	0.899649224	0.002748324
MAFG	0.883301416	0.010375523
MYH9	0.882974036	5.43E-05
PRKD3	0.882225906	0.041219868
STK10	0.869580808	0.012645281
IDS	0.865262587	0.014992216
SP140	0.864054807	4.09559E-04
PMAIP1	0.856056526	0.025029336
GNA13	0.854363064	3.41E-05
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PCNX1	0.843931821	0.016257852
LAPTM4A	0.842567342	0.015967592
TUBB4B	0.84127948	0.030743587
CYB5B	0.84013513	0.037688024
SH3BGRL3	0.839996685	0.005089748
SEC61B	0.838595834	0.003669445
HNRNPA0	0.837662449	0.001244471
SYNGAP1	0.834799285	0.010158055
APMAP	0.832334891	0.003954397
LCP1	0.831612756	3.39623E-04
RCOR1	0.822979098	0.029985966
G3BP2	0.816036143	0.007010542
HSPA5	0.815525048	0.030035605
PLEKHG2	0.814505539	0.028362535
UBE2L6	0.814472972	0.003977598
CLIP4	0.813885328	0.02668374
SURF4	0.811492703	0.011538684
JMJD6	0.809110858	0.006466351
MCM4	0.805925384	0.041428171
ETF1	0.803750716	2.17E-05
IFITM1	0.801828355	0.048929323
SMURF2	0.801021632	0.001112809
DENND5A	0.798737028	0.019818135
C18orf25	0.797449424	0.030817514
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IMP4	0.788490543	0.006611015
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RAC2	0.785875831	0.018808713
NCOR2	0.785067735	0.036870883
DYNLL2	0.77323042	0.04393734
GNAI2	0.770770914	0.001487847
COQ10B	0.767271639	0.008192105
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SRRT	0.744038228	0.023982564
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COX5A	0.741864266	0.030035961
ICOS	0.737052825	0.033852156
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LYAR	0.716677441	0.042167593
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VCP	0.681528717	0.017361701
FUBP1	0.679782271	0.022816359
PDIA3	0.679504474	0.028648651
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CDKN1B	0.670692333	0.035913576
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ARFGAP3	0.65872806	0.018808713
STAM	0.650131988	0.002925357
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EPRS	0.645179974	0.001799786
PFN1	0.643745818	0.031763202
ACTB	0.643506623	0.002714817
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CDC42SE2	0.634587162	0.041439979
SSR3	0.62751801	0.037025662
KIAA1109	0.624130394	0.043581766
TLN1	0.621278176	0.027596006
CD96	0.619635213	0.005212307
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ARPC2	0.59052667	0.043058749
CKAP2	0.584217332	0.005041976
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FAM91A1	0.57828396	0.036729044
TAF7	0.578270044	0.027199319
NCOA4	0.573412201	0.040955733
HOOK3	0.572221325	0.003975007

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CEBPZ	0.549583949	0.039895102
CD5	0.547798939	0.010670288
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SERBP1	0.50417093	7.19604E-04
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STK17B	-0.439065029	0.017361701
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PCM1	-0.54607922	0.004528741
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GCC2	-0.633377351	0.009711927
CENPC	-0.658178169	0.045097496
XPO6	-0.664894449	0.004911952
YEATS2	-0.665790663	0.004202483
CHD3	-0.682605666	0.02908414
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SRPK2	-0.694881064	0.008442592
NSRP1	-0.695523896	0.042786648
LDHA	-0.698042536	0.015817551
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SNHG15	-0.733322751	0.026385001
IL6ST	-0.733777484	0.010009333

MYCBP2	-0.740411583	0.047375832
BAZ1A	-0.743763642	9.82018E-04
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SFSWAP	-0.773811905	0.017998826
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SARAF	-0.801454609	9.45785E-04
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TFRC	-0.830895827	0.036575597
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PRMT2	-0.852317822	0.048517617
GIMAP5	-0.852472257	0.036136343
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NECAP2	-0.857615278	0.008845996
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ANAPC5	-0.884253687	0.004663894
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OSBPL8	-0.89448182	0.008192105
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TCF7	-0.924815711	1.39997E-04
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PLAG1	-0.984180635	2.67E-06
CRTC3	-0.984815869	7.68E-05
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PLXDC1	-0.993260965	0.038919888
NISCH	-0.993541702	0.020339132
STAT6	-0.997912194	0.006696331
SMC4	-0.998626767	5.62549E-04
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KLHDC4	-1.0294319	0.022793132
BTN3A1	-1.033061413	0.02434592
TRIP11	-1.033949472	0.019913545
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PMF1	-1.039432063	0.04731046
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ARRDC2	-1.052385847	0.005142551
R3HDM1	-1.06036684	0.003012627
HELB	-1.082352934	0.025375155
SOD2	-1.086324892	0.026593945
SORL1	-1.089332629	0.022419176
MSL3	-1.091320463	0.013594497
MAP4K4	-1.091997611	8.32E-08
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TUBGCP6	-1.129898688	0.041642449
EPB41	-1.130164609	3.39E-08
TGFBR2	-1.130256533	0.004557419
PHF10	-1.140956279	3.51222E-04
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SYNE1	-1.147097925	1.84627E-04
ZEB1	-1.158221847	2.80E-06
COA1	-1.161500971	1.08E-05
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TLE4	-1.182771511	2.06E-05
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CAPN2	-1.189070403	0.014210783
CCDC18-AS1	-1.191473597	4.27679E-04
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TRAP1	-1.193432089	0.048333231
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TTC13	-1.205766183	0.018808713
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FNIP2	-1.220679292	0.037357844
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IRAK4	-1.259569815	6.59E-05
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SNHG14	-1.267173173	5.21091E-04
PCED1B-AS1	-1.268670066	0.027013694
GIMAP6	-1.2714146	0.022859334
PCID2	-1.274164045	0.017353301
GXYLT1	-1.274488579	3.42982E-04
SMAP2	-1.275793735	1.45E-22
MRPL1	-1.299047283	0.002289756
KLF3	-1.305322736	9.89E-06
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HPS5	-1.307863649	0.017361701
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CAMK1D	-1.317474617	0.036388085
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SDHC	-1.377085135	0.012545506
CD2	-1.385365916	5.55865E-04
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SH3BP2	-1.39092809	0.01706832
PIK3IP1	-1.393447112	1.23E-05
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ADAT2	-1.418442718	0.001579319
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ADD3	-1.445509187	0.001471376

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LY9	-1.462813107	0.018808713
USP3	-1.466385746	5.11E-08
ATP8A1	-1.472625023	7.83E-06
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SSH2	-1.480087465	5.65E-09
COASY	-1.483402309	0.009067537
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KLF7	-1.534520137	8.80234E-04
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CERKL	-1.568562098	0.018808713
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PLEKHA1	-1.592054796	6.57523E-04
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TSSK4	-1.644210295	0.019668692

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SKIL	-1.663725388	5.32E-11
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POLI	-1.684211282	0.031163075
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LIMK2	-1.70910934	4.85E-07
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SYTL1	-1.747260622	0.029162272
PRKACB	-1.750854025	6.77E-10
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JAK3	-1.75628037	3.67569E-04
GIMAP4	-1.777227188	0.005858241
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AXIN2	-1.783528758	0.009848813
ZMAT1	-1.788824606	4.05E-06
BBS2	-1.789837655	0.036044957
PLEC	-1.797595696	7.84E-07
IKZF3	-1.798577573	6.54749E-04
CUEDC2	-1.803294288	0.042045762
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ADGRA3	-1.816319302	0.001066643
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SAMD3	-1.830041944	0.01668567
TRNT1	-1.844037444	3.40147E-04
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PDE8B	-1.85676368	0.004727061
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FYB1	-1.8766225	1.07E-15
DGKA	-1.880292618	4.30E-06
CYB5D2	-1.900843706	0.001614919
PYCR2	-1.902391912	0.021644834
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CEP170	-1.916839707	0.006732069
TANK	-1.917321709	0.015300717
BMP2K	-1.923861981	5.46E-05
SBNO2	-1.925090586	0.010485698

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MOSPD2	-1.944964315	0.046110715
STX3	-1.969396142	0.032539456
TM7SF2	-1.971222844	0.025375155
PTPRK	-1.978216819	0.031115847
TBC1D8	-1.979407601	0.015240567
CHMP7	-1.990243498	0.009848813
GTF2IP20	-1.993498401	0.041213599
APOOL	-2.008452018	3.56103E-04
GPR155	-2.012449671	0.00044895
EIPR1	-2.014162247	0.005666445
LINC01619	-2.016492238	5.89E-05
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RARA	-2.022200331	0.002908291
YBX1P2	-2.045875499	0.027199319
CCDC77	-2.051371565	0.043581766
CDH23	-2.06035456	4.22295E-04
MYH11	-2.076657456	0.033122447
CHURC1	-2.104195024	0.001553876
AC009812.3	-2.108951945	0.017634771
TRAF3IP3	-2.132150267	0.001056919
ZNRD1ASP	-2.137750893	0.048496358
ZC3H12D	-2.144892049	0.046566933
CSGALNACT1	-2.147228523	0.012336473
PHF23	-2.15431163	0.004395197
AC092953.2	-2.158308081	0.049477811
TXK	-2.158784399	1.35E-05
AP4S1	-2.183177258	7.46E-05
NUCB2	-2.194443956	0.007630963
SCML1	-2.198146965	2.32E-14
MZF1-AS1	-2.199715144	0.002142352
ZC3H6	-2.225309852	0.003892706
FMNL2	-2.241659033	0.006367135
ACAD10	-2.249908683	4.08E-05
RMDN1	-2.262023847	2.77E-08
PGM2L1	-2.265618008	1.55E-09
GIMAP7	-2.268996571	7.93E-11
ALDH16A1	-2.286916908	0.001058314
RASGRP2	-2.289727153	5.56E-11

GCSAM	-2.296285639	4.17779E-04
RRNAD1	-2.297279418	0.016129697
IGSF9B	-2.29745116	1.08701E-04
METTL23	-2.332309789	1.10943E-04
EFHC1	-2.368150817	0.02434592
AL118558.1	-2.368989721	0.003213599
C2CD2	-2.370144469	0.032049135
MIB2	-2.387285984	0.024229319
ZNF561	-2.407860741	4.70E-08
XXYL1	-2.407940551	0.012281854
SFT2D1	-2.42368637	0.004395197
TLE1	-2.436933748	0.004083454
NREP	-2.445377449	0.041523871
APTR	-2.452026791	0.043567047
TONSL	-2.46329656	0.046244311
TMEM63A	-2.474341484	1.81E-15
C1orf35	-2.480685003	0.00435287
AF001548.2	-2.501017748	2.42878E-04
ZNF17	-2.525954416	0.029064402
SMPD1	-2.544491852	1.02E-06
KLF7-IT1	-2.590276703	0.049762722
NEIL1	-2.64240964	0.022529782
TBC1D4	-2.671456285	2.86E-06
CEMIP	-2.687259873	0.016935423
IQSEC1	-2.694291955	1.64E-20
SNX30	-2.720607063	0.006800215
MPPE1	-2.724845543	0.013585658
ZNF815P	-2.729321215	0.013479545
GIMAP8	-2.748090234	0.023185624
GSAP	-2.792906219	0.019177706
CLDN15	-2.812723009	0.001042079
TRAJ53	-2.819500487	0.026835143
AC116407.2	-2.831170889	0.017998826
DCHS1	-2.846933837	0.003669164
AC004847.1	-2.867661272	0.001780999
SRP54-AS1	-2.874033632	0.005837798
S1PR1	-2.904780641	2.44E-14
AC012368.1	-2.911836745	0.010158055
PZP	-2.91326365	0.001487847

ITGA6	-2.920272739	9.24E-07
TENM1	-2.936464895	8.88E-17
LINC01089	-2.945326485	0.004021682
PPIP5K1	-2.955742543	0.02434592
C6orf203	-2.959277559	0.044129782
RNU6-790P	-2.971778424	0.010075912
EPHA1	-2.986390389	0.049939763
ENC1	-2.986717949	2.54E-05
TLDC2	-3.029347478	0.037045665
A2M-AS1	-3.032877168	4.60686E-04
EPHX1	-3.038617067	8.77432E-04
NELL2	-3.069452714	0.00053942
COL6A2	-3.094040988	7.16E-05
VAV3	-3.101466266	1.22E-06
ERVH48-1	-3.107151224	8.78503E-04
IKZF4	-3.110904093	4.20E-05
AC010615.1	-3.116905199	4.39041E-04
DPEP2	-3.143134374	8.43025E-04
NBPF9	-3.156827451	5.17E-07
STX10	-3.169932841	0.042167593
GNPDA1	-3.21067298	0.00565478
PXN	-3.212207263	8.63E-28
EFCAB5	-3.213756909	0.029529209
CDCA7L	-3.216601908	0.001373816
EPHB6	-3.23318439	0.009729454
LRRK1	-3.251438654	0.001174964
ZNF710-AS1	-3.327764948	0.010028691
TSGA10	-3.330766085	0.033359095
FLT3LG	-3.338255185	0.022065136
ZBTB46	-3.349214618	0.015902089
NFKBIL1	-3.355218156	0.037578129
GAL3ST4	-3.370638136	7.85455E-04
CTRC	-3.387006353	0.024677495
LEF1	-3.401065178	4.06E-11
FMC1	-3.412255844	0.019184598
DBP	-3.424481928	0.002638146
CCM2	-3.453473936	1.12E-06
AL591895.1	-3.459028569	7.75E-08
S100B	-3.48671846	0.003320494

CNKS2	-3.500114323	0.023851291
LRR8C	-3.517109983	2.75E-14
CAP5	-3.553512791	0.004362258
RMI2	-3.580265355	0.036388085
SYNM	-3.59033321	1.72E-05
SBK1	-3.653345841	0.03263946
AC012146.1	-3.695405319	0.046078576
UBX8	-3.743553779	0.004348406
MYH3	-3.771834332	9.31E-05
FLT1	-3.794534559	1.22E-12
DEPDC7	-3.80337756	6.74E-05
COL18A1	-3.830614273	9.30E-05
ACTN1	-3.830860618	0.006785604
CASC15	-3.849784288	4.30E-06
AC084824.5	-3.872853031	0.027811057
AREG	-3.886286252	6.62189E-04
DPPA4	-3.908698686	0.00453304
PFKFB2	-3.925782144	6.56E-12
TRABD2A	-3.928341932	7.00E-05
PLCB4	-3.943855009	0.022004742
ZRANB3	-4.000360031	0.002944505
AGAP9	-4.056272762	0.009947906
NAPA-AS1	-4.073828315	0.001553876
KLF3-AS1	-4.075416106	0.029584566
FGFBP2	-4.079665787	0.038462447
GALNT12	-4.103686707	0.005212307
YBX3	-4.110100184	4.26E-32
YPEL4	-4.13974859	0.00903935
MUM1	-4.15042422	6.29E-05
AL355581.1	-4.170003313	0.001553396
HPCAL4	-4.238101459	0.038415402
INSL3	-4.297934133	0.010486825
KLF2	-4.357336977	9.81E-05
AC080112.4	-4.585775943	6.42197E-04
AP000866.2	-4.618655026	0.017797599
SGIP1	-4.672952581	0.007563909
DBH-AS1	-4.67683174	9.58125E-04
PTPRB	-4.68202712	3.53052E-04
MIR4697HG	-4.745172924	1.22325E-04

CHRM5	-4.768958159	1.47E-05
LYPLAL1	-4.788592481	0.013524128
CENPQ	-4.807912661	5.44686E-04
CCR7	-4.819883556	6.96E-12
GRK3	-4.904836468	1.44282E-04
KLRA1P	-4.907961011	1.57E-05
CDR1	-4.963417413	0.005902333
EDAR	-5.289941563	0.027409113
AL512306.2	-5.32442536	0.012420425
AC027449.1	-5.384730589	0.004736431
NBAT1	-5.707485936	0.04241665
LEF1-AS1	-6.038662422	4.03E-08
AL138899.1	-6.172733671	0.005170099
EFNA1	-6.282037088	1.92E-05
ACSS2	-6.3895244	8.70E-05
AC079584.2	-6.592269135	0.001408432
TNFRSF21	-6.616710808	1.42E-18
SSTR3	-6.663079153	1.20212E-04
LINC00452	-7.366250843	2.22196E-04
AC139768.1	-7.443783181	1.74E-06
AC073909.1	-7.54319669	8.45709E-04
PTGIR	-7.664517747	1.84E-07
C11orf21	-7.92068106	3.31E-13
AC093330.2	-8.186016026	1.20E-06
SELL	-8.333654039	6.22E-27
ITGAM	-8.488649632	1.10E-12
SLC14A1	-9.93337665	1.52E-10

Supplementary Table 4.
Core transcriptional signature of
SI-PLZF⁺ CD4⁺ T cells

Gene	PLZF ⁺ CD4 ⁺ T cells vs Va7.2 ⁺ CD161 ⁺ T cells LFC	PLZF ⁺ CD4 ⁺ T cells v Va7.2 ⁺ CD161 ⁺ T cells FDR	PLZF ⁺ v PLZF CD4 ⁺ T cells LFC	PLZF ⁺ v PLZF CD4 ⁺ T cells FDR
ADCY6	6.429269334	1.23E-09	6.357528	1.28E-08
WWC3-AS1	5.483344109	5.09746E-04	5.215813531	0.001779452
CDRT4	4.964928173	0.019268641	4.403287361	0.049244741
MMRN1	4.856047988	9.06416E-04	4.057254931	0.013310412
LINC01229	4.565746595	8.02E-05	11.05731919	1.79E-12
AC044781.1	4.286583357	4.43E-09	1.899908992	0.042167593
ZNF319	4.117723796	0.005419629	4.560102814	0.002646053
HLF	4.030209517	0.020298534	10.47219303	2.63E-08
LRP1B	3.873635194	6.57E-10	2.540930538	4.77078E-04
ZSWIM5	3.622439575	0.045404893	3.937462003	0.033678984
SCN3B	3.570456559	0.001778164	5.034363482	5.08E-06
PRR5L	3.305889414	0.033560213	5.58128309	6.74E-05
KLHL29	3.238248733	9.32E-10	2.225241951	2.33485E-04
LINC00892	3.236907741	0.013636345	5.610420845	2.70E-06
RNF165	3.226294705	0.004336233	8.637605117	8.72E-15
GAD1	3.128197144	3.77663E-04	4.618520213	5.13E-08
C2orf66	3.127235456	0.001525214	2.828690261	0.008963127
ATP9A	2.950214598	0.01671815	4.616796096	4.27E-05
DUSP6	2.898197389	7.91E-05	3.665469474	5.88E-07
EGLN3	2.743045175	0.016818901	4.899664023	1.69E-06
LIF	2.693260846	8.53E-05	7.040804908	9.31E-29
RPL23AP55	2.609190175	0.04820469	3.319917632	0.0124767
SAMD4A	2.590802564	0.038714893	4.157981778	2.34087E-04
CHN2	2.521450565	0.004389233	3.640540946	1.43E-05
HOXB3	2.51332424	1.63E-05	2.503976752	5.02E-05
MCOLN3	2.502773386	0.007968557	3.092730226	8.45902E-04
SPART	2.502677265	0.004326857	2.294929899	0.016537549
NPTX1	2.459541363	0.011474571	2.297794631	0.029456578
MID1IP1	2.384904452	7.11769E-04	2.378127935	0.001351606
PALLD	2.37310774	9.04E-07	2.928489099	2.52E-09
PGAP1	2.300859577	3.42388E-04	1.663795246	0.028362535
RIPOR3	2.294236901	0.041671171	2.557703113	0.025327145
UBE2F	2.274067717	6.53E-13	1.091441285	0.006367135

ZNF462	2.26674392	9.04E-05	1.466822315	0.038601103
PLA2G16	2.23740614	0.008546397	2.142495076	0.019177706
ESR2	2.219514767	0.001254172	2.242722726	0.001965314
NLRP6	2.128440154	1.01E-05	2.744832445	1.34E-08
DOCK5	2.111749026	1.02E-06	3.268066104	1.59E-14
GRAMD1B	2.094829236	2.82E-08	2.2580185	9.82E-09
SNX18	2.082552529	0.013126444	3.109226851	6.80E-05
CST7	2.076828727	1.12E-05	3.788878856	4.28E-17
IL2	2.040731993	0.002126244	2.773988315	1.63E-05
ASB2	2.03212369	0.004412941	4.921496898	2.80E-15
RCBTB2	1.986461102	0.03291841	2.114755526	0.027281279
P2RY14	1.953018896	4.91E-05	2.457912062	3.40E-07
SCUBE1	1.946656456	0.048658702	2.078093478	0.041213599
DUSP4	1.935592938	2.39835E-04	3.212593392	1.02E-10
GAB2	1.927053275	2.98E-21	2.463105625	5.04E-32
AL390208.1	1.923882103	0.048683543	2.750205915	0.003012627
DTX1	1.918442078	6.84025E-04	3.886459974	3.85E-14
ARHGEF12	1.903626071	0.005521805	1.82357239	0.013386581
BCL2A1	1.900922167	3.08E-08	2.544615267	2.33E-13
MAP3K8	1.827426214	7.66E-05	3.944471768	2.00E-20
ATXN7L2	1.806631178	0.003786258	1.539602951	0.027744659
PDCD1	1.798317904	0.029557672	3.258678204	6.25E-06
CD40LG	1.791625725	2.60E-10	2.280265164	3.68E-15
IRAK2	1.791215116	0.013096404	2.936982543	7.50E-06
LRIG1	1.77813719	2.75E-06	1.266794912	0.004227078
GPR137B	1.755314343	0.03797555	1.772165889	0.046278703
SLC1A4	1.741573746	2.31966E-04	2.009789943	2.76E-05
GRK5	1.741344318	9.47E-34	1.071309111	2.44E-11
PRKAB1	1.738384414	1.42375E-04	1.536219478	0.002201265
LPAR6	1.733554288	0.00690225	2.109037064	8.77658E-04
DUSP5	1.690242777	0.00260957	3.343285006	3.63E-11
IL18RAP	1.660853557	0.005919817	6.005377187	4.87E-33
GLB1	1.657827044	3.27778E-04	1.984764785	1.80E-05
DLL1	1.65682454	1.35E-05	3.614258304	3.94E-24
KIAA0040	1.638966347	0.036077961	1.651319189	0.044646237
XCL2	1.633672504	0.032372686	3.799128896	2.23E-09
RALB	1.629340774	0.038714893	2.363240085	0.001174964
PRKAB2	1.628105641	0.009660066	1.514643211	0.026746326
PBX4	1.623857186	0.001995104	1.96453625	1.77876E-04

SSH1	1.604669235	4.47E-08	1.404632377	1.08E-05
ZNF571	1.582411465	0.001302104	1.435799356	0.007676839
HNRNPLL	1.581613001	1.65229E-04	1.558132109	4.60686E-04
LINC01871	1.515430174	0.036390225	4.154141171	1.38E-12
OTUD7B	1.488539744	0.001740296	2.422114155	7.96E-08
IL18R1	1.487277504	1.59E-07	3.794365351	8.53E-45
ARHGAP21	1.48166889	8.51E-05	1.526523147	1.07318E-04
AHR	1.476178037	0.001256224	1.2527915	0.014673472
EPAS1	1.465748048	9.00E-06	1.376821078	9.92E-05
SPAG5	1.396491743	0.014560646	2.058281483	1.04887E-04
ZCCHC2	1.359203267	2.11E-07	1.225802413	1.48E-05
TRAT1	1.356413378	2.43406E-04	1.243202861	0.001932887
IL2RB	1.323652319	2.11E-07	1.30297757	1.46E-06
ADAM19	1.316259741	2.43406E-04	2.407007194	6.00E-13
TESC	1.315119816	0.041969377	1.45355237	0.027231616
CCR4	1.300548366	0.002484828	2.078019248	2.32E-07
LINC00963	1.297655804	1.02E-05	1.527730694	3.42E-07
WEE1	1.27098518	9.42496E-04	1.265899033	0.001832888
ZNF552	1.268294341	0.001528616	1.591030643	6.04E-05
ID2	1.257197627	8.23E-05	2.050933468	1.60E-11
IL32	1.235455541	0.039138046	1.37789157	0.023390166
KIF3B	1.234412867	0.011680284	1.459164464	0.002853663
PIK3R1	1.228170543	0.006777556	1.571956406	3.67569E-04
CPD	1.220829745	1.48E-05	1.964129675	5.97E-13
RARRES3	1.215911303	5.66E-05	1.319744271	2.22E-05
PLIN2	1.190645879	5.76098E-04	1.511244701	1.01E-05
CD59	1.189825849	0.005828647	1.125471545	0.015863849
ZFP30	1.175193109	0.010574414	2.529458566	2.44E-10
AMZ2	1.171348279	0.001538041	1.161243033	0.003183449
ANXA11	1.158404462	1.21E-05	1.316166221	1.31E-06
GLO1	1.135473089	0.007912482	1.936130342	6.28E-07
EPSTI1	1.131373255	0.01459934	1.081290205	0.029584566
FADS3	1.113446283	0.021137958	1.268125574	0.009041148
ARAP2	1.101276605	0.019505157	1.148876122	0.019154926
TMEM9B	1.0846513	2.25088E-04	1.040262435	0.00089946
RASGRF2	1.070757581	0.001814669	2.118504141	9.52E-12
ATP1B3	1.063162408	0.031176216	1.519320746	8.77432E-04
MIR22HG	1.044716848	6.13354E-04	1.299038665	1.76E-05
SEC24D	1.037055295	0.010942819	1.149121729	0.005744698

ITGAM	-9.855358803	2.58E-18	-8.488649632	1.10E-12
C11orf21	-9.791822508	1.30E-20	-7.92068106	3.31E-13
SELL	-8.31095405	1.36E-29	-8.333654039	6.22E-27
S100B	-6.852041938	6.95E-13	-3.48671846	0.003320494
TNFRSF21	-6.231404844	9.92E-18	-6.616710808	1.42E-18
EFNA1	-6.179918855	1.19E-05	-6.282037088	1.92E-05
SBK1	-6.042240409	1.11E-05	-3.653345841	0.03263946
COL6A2	-5.436250169	2.28E-16	-3.094040988	7.16E-05
LEF1-AS1	-5.351419765	6.68E-07	-6.038662422	4.03E-08
CCR7	-5.186539819	2.91E-15	-4.819883556	6.96E-12
AC012146.1	-5.029466164	0.001442124	-3.695405319	0.046078576
AC080112.4	-4.958332815	7.19E-05	-4.585775943	6.42197E-04
AL355581.1	-4.808370069	6.53E-05	-4.170003313	0.001553396
AC027449.1	-4.674174513	0.014381859	-5.384730589	0.004736431
KLRA1P	-4.640764265	2.58E-05	-4.907961011	1.57E-05
GRK3	-4.612923765	2.25375E-04	-4.904836468	1.44282E-04
MIR4697HG	-4.588024217	1.05563E-04	-4.745172924	1.22325E-04
DPPA4	-4.577061993	2.25975E-04	-3.908698686	0.00453304
YBX3	-4.513975734	3.25E-43	-4.110100184	4.26E-32
SGIP1	-4.43023322	0.008844203	-4.672952581	0.007563909
FLT1	-4.29838274	4.91E-18	-3.794534559	1.22E-12
KLF2	-4.054853615	1.79496E-04	-4.357336977	9.81E-05
PFKFB2	-3.906583607	4.96E-13	-3.925782144	6.56E-12
CAPN5	-3.824309907	9.04085E-04	-3.553512791	0.004362258
ACTN1	-3.739300951	0.005561547	-3.830860618	0.006785604
DBP	-3.738866805	3.85266E-04	-3.424481928	0.002638146
FLT3LG	-3.72776577	0.0048542	-3.338255185	0.022065136
AC116407.2	-3.692188453	3.65061E-04	-2.831170889	0.017998826
AL591895.1	-3.683762268	1.20E-09	-3.459028569	7.75E-08
PLCB4	-3.561708772	0.035489516	-3.943855009	0.022004742
EPHB6	-3.542632594	0.001932993	-3.23318439	0.009729454
ZBTB46	-3.521115313	0.006288875	-3.349214618	0.015902089
CDCA7L	-3.50908957	1.60226E-04	-3.216601908	0.001373816
MUM1	-3.505226335	7.40447E-04	-4.15042422	6.29E-05
UBXN8	-3.460922117	0.006976169	-3.743553779	0.004348406
SNX30	-3.450700466	9.16E-05	-2.720607063	0.006800215
NAPA-AS1	-3.411373864	0.00900041	-4.073828315	0.001553876
RMI2	-3.354411879	0.043484839	-3.580265355	0.036388085
GALNT12	-3.261066355	0.032596862	-4.103686707	0.005212307

AREG	-3.247531714	0.004722628	-3.886286252	6.62189E-04
DCHS1	-3.22636025	2.91883E-04	-2.846933837	0.003669164
A2M-AS1	-3.212885031	7.19E-05	-3.032877168	4.60686E-04
NELL2	-3.149685887	1.60226E-04	-3.069452714	0.00053942
ALDH16A1	-3.115300538	3.34E-07	-2.286916908	0.001058314
DEPDC7	-3.105331757	0.001417549	-3.80337756	6.74E-05
IGSF9B	-3.003445	1.40E-08	-2.29745116	1.08701E-04
TLE1	-2.938752978	1.04305E-04	-2.436933748	0.004083454
AC020916.1	-2.914025921	1.42E-09	-1.33503947	0.036895952
MYH3	-2.853609322	0.004353586	-3.771834332	9.31E-05
ZRANB3	-2.837455465	0.049265389	-4.000360031	0.002944505
SYTL1	-2.834337835	1.19E-05	-1.747260622	0.029162272
ENC1	-2.786827984	4.82E-05	-2.986717949	2.54E-05
CEMIP	-2.734866848	0.009959911	-2.687259873	0.016935423
RARA	-2.712801148	4.18E-06	-2.022200331	0.002908291
LRRC8C	-2.705015697	2.83E-09	-3.517109983	2.75E-14
DPEP2	-2.691784208	0.004219495	-3.143134374	8.43025E-04
GRASP	-2.611156867	1.12E-05	-1.574677408	0.033497117
AP4S1	-2.593540245	2.31E-07	-2.183177258	7.46E-05
NBPF9	-2.569084907	4.59E-05	-3.156827451	5.17E-07
RNU6-790P	-2.568433986	0.027101561	-2.971778424	0.010075912
TRABD2A	-2.564828822	0.017342458	-3.928341932	7.00E-05
NUCB2	-2.554921005	5.59727E-04	-2.194443956	0.007630963
NREP	-2.472893164	0.02947269	-2.445377449	0.041523871
AC004847.1	-2.456685891	0.007455848	-2.867661272	0.001780999
LEF1	-2.443523549	2.54E-06	-3.401065178	4.06E-11
CLDN15	-2.417387207	0.004773213	-2.812723009	0.001042079
IQSEC1	-2.404209449	4.91E-18	-2.694291955	1.64E-20
EFHC1	-2.384652334	0.016333993	-2.368150817	0.02434592
GAL3ST4	-2.375927121	0.028106448	-3.370638136	7.85455E-04
ZNF815P	-2.364903691	0.032878577	-2.729321215	0.013479545
S1PR1	-2.362298185	2.09E-10	-2.904780641	2.44E-14
PCED1B-AS1	-2.329910108	2.31E-07	-1.268670066	0.027013694
MVB12B	-2.325455268	3.92E-05	-1.453024442	0.037895717
PXN	-2.274114934	3.60E-15	-3.212207263	8.63E-28
PLCG1	-2.265986924	6.76E-06	-1.620529723	0.005838235
EPHX1	-2.238994308	0.020545478	-3.038617067	8.77432E-04
RRNAD1	-2.175573465	0.018552587	-2.297279418	0.016129697
MFGE8	-2.167004249	3.86E-08	-1.538987381	6.82916E-04

ITGA6	-2.151057386	4.15361E-04	-2.920272739	9.24E-07
EPHA4	-2.119304122	1.12E-06	-1.804441048	1.67816E-04
TENM1	-2.095910159	2.13E-09	-2.936464895	8.88E-17
CASC15	-2.076012282	0.032389446	-3.849784288	4.30E-06
METTL23	-2.006705842	8.07769E-04	-2.332309789	1.10943E-04
SAMD3	-2.006197077	0.00410829	-1.830041944	0.01668567
CCDC125	-1.998876456	0.011617003	-1.755890404	0.045583194
ZNF496	-1.926333703	1.06989E-04	-1.600541845	0.004085248
TM7SF2	-1.918334394	0.023271147	-1.971222844	0.025375155
PLEC	-1.906786713	2.04E-08	-1.797595696	7.84E-07
HADH	-1.897806315	0.001747766	-1.501264511	0.031685076
CCM2	-1.87728473	0.020520576	-3.453473936	1.12E-06
CDH23	-1.809054651	0.001703358	-2.06035456	4.22295E-04
LYPD3	-1.808136861	2.23E-10	-1.569369863	3.96E-07
TXK	-1.761581987	3.92078E-04	-2.158784399	1.35E-05
SKIL	-1.728639276	4.35E-13	-1.663725388	5.32E-11
TMEM63A	-1.726499924	2.82E-08	-2.474341484	1.81E-15
MZF1-AS1	-1.7172842	0.020947211	-2.199715144	0.002142352
USP3	-1.712961867	4.42E-12	-1.466385746	5.11E-08
AXIN2	-1.705430504	0.010149782	-1.783528758	0.009848813
CAPN2	-1.702296873	3.08E-05	-1.189070403	0.014210783
GIMAP4	-1.672152906	0.007349886	-1.777227188	0.005858241
ADGRA3	-1.635748673	0.002709826	-1.816319302	0.001066643
PPT1	-1.627103811	0.001528616	-1.404565385	0.014251833
LDLR	-1.624105062	0.008979503	-1.426489719	0.038415402
NOSIP	-1.615706225	0.00037664	-1.846140244	6.24E-05
SH3BP2	-1.609388362	0.002041651	-1.39092809	0.01706832
RBL2	-1.598634625	5.27E-07	-1.237776348	0.00057118
TLE4	-1.542332776	6.12E-10	-1.182771511	2.06E-05
ZNF22	-1.518408117	0.002974036	-1.420774898	0.010326638
MAP3K4	-1.516602402	0.02515865	-1.682837456	0.014343456
ZBTB41	-1.432716607	0.047691348	-1.874510776	0.006569311
AC008105.3	-1.402267445	0.008795521	-1.588708155	0.003277779
LY9	-1.395058724	0.020053231	-1.462813107	0.018808713
LTA4H	-1.390813084	3.49E-07	-1.09969505	3.31736E-04
LINC01619	-1.39024118	0.009768915	-2.016492238	5.89E-05
NDUFS2	-1.378093374	0.005561547	-1.522424377	0.002781665
GIMAP7	-1.340570919	3.24291E-04	-2.268996571	7.93E-11
RASGRP2	-1.330181074	3.83857E-04	-2.289727153	5.56E-11

SORL1	-1.325133334	0.001557962	-1.089332629	0.022419176
KLF3	-1.284753128	4.49E-06	-1.305322736	9.89E-06
KLHDC4	-1.229800641	0.002075047	-1.0294319	0.022793132
SNHG14	-1.208690888	0.00059194	-1.267173173	5.21091E-04
RASA3	-1.200535522	1.04771E-04	-1.477350156	1.92E-06
PIK3IP1	-1.1951371	1.39868E-04	-1.393447112	1.23E-05
ABLIM1	-1.17967497	6.41E-05	-1.443759538	1.13E-06
DGKA	-1.156447373	0.00985195	-1.880292618	4.30E-06
FYB1	-1.14845902	1.72E-06	-1.8766225	1.07E-15
ZNF561	-1.131157833	0.032389446	-2.407860741	4.70E-08
BMP2K	-1.120506094	0.038738816	-1.923861981	5.46E-05
PGM2L1	-1.103265937	0.010654398	-2.265618008	1.55E-09
PCID2	-1.085314825	0.043484839	-1.274164045	0.017353301
STK38	-1.080469121	0.001303451	-1.516750495	2.78E-06
SCML1	-1.077462633	6.84238E-04	-2.198146965	2.32E-14
ATP8A1	-1.044338286	0.002323138	-1.472625023	7.83E-06
NFYA	-1.037113551	0.014611824	-1.027598901	0.022681083
RIPOR2	-1.035141014	0.009736783	-1.475508081	9.05E-05
CCDC18-AS1	-1.022310751	0.002325102	-1.191473597	4.27679E-04

Supplementary Table 5. Demographic characteristics of patients with gastroschisis.

	Gastroschisis (n=8)	Healthy Term controls (n=23)
Maternal age (y)	32 (18-43)	28 (18-45)
Cesarian delivery	37.5%	38%
Presence of labor	14%	
Gestational age (wks)	36 5/7 (35-37)	38 3/7 (37 – 41)
Male fetus	75%	
Birth weight (gr)	2495	3052

Data are presented as average (range) or %.

Supplementary Table 6. Demographic characteristics of patients with preterm birth.

	Preterm birth (n=22)	Healthy Term controls (n=23)
Maternal age (y)	35 (28-41)	28 (18-45)
Cesarian delivery	53%	38%
Presence of labor	64%	
Gestational age (wks)	33 4/7 (25 0/7-36 2/7)	38 3/7 (37 – 41)
Male fetus	47%	
Birth weight (gr)	1970	3052

Data are presented as average (range) or %.