Table S1. RT-PCR primers

GENE	Sequence
SDC1-F	5’-CTGCCGCAAATTGTGGCTAC-3’
SDC1-R	5’-TGAGCCGGAGAAGTTGTCAGA-3’
CHRM3-F	5’-CACAATAACAGTACAACCTCGCC-3’
CHRM3-R	5’-GCCAGGATGCCCGTTAAGAAA-3’
HTR2C-F	5’-CTAATTGGCCTATTGGTTTGGCA-3’
HTR2C-R	5’-CCACCATCGGAGGTATTGAAAA-3’
CD22-F	5’-GCACCCTGAAACCCTCTACG-3’
CD22-R	5’-ATCAAACTTCGAGGTGTTCTTGT-3’
CD72-F	5’-ATCTGAGGTTTGTGAAGGCTCC-3’
CD72-R	5’-AACATTCTCGTAGGTGATTTCCC-3’
CD19-F	5’-CCCAAGGGGCCTAAGTCATTG-3’
CD19-R	5’-AACAGACCCGTCTCCATTACC-3’
GAPDH-F	5’-TGCACCACCAACTGCTTAGC-3’
GAPDH-R	5’-GGCATGGACTGTGGTCATGAG-3’

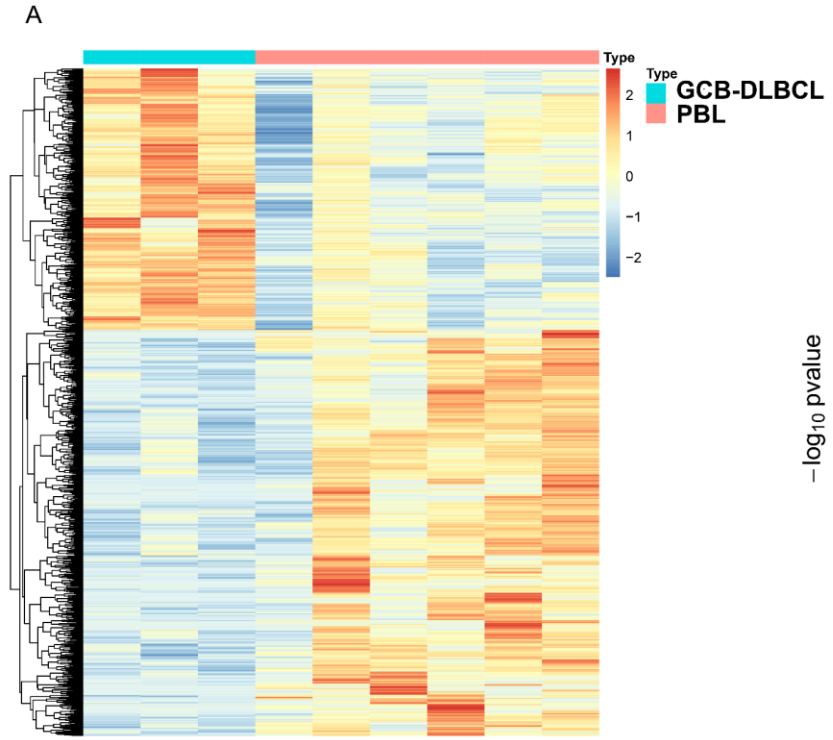
Table S2. Clinicopathologic characteristics of PBL patients in our study

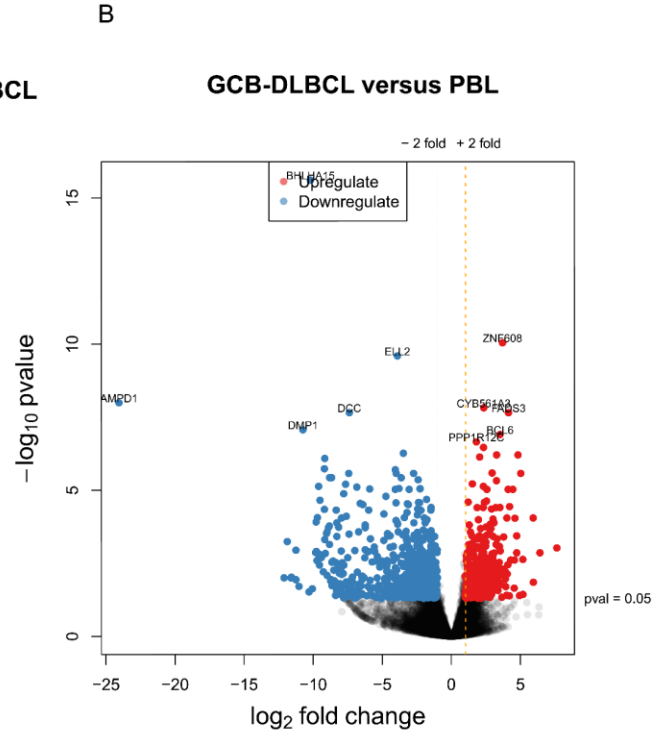
Variable	Total N (%)
Patients	102
Age (years)	
>60	39(38.2)
≤60	63(61.8)
Median (years)	55
Sex	
Male	68(66.7)
Female	34(33.3)
Site(s) of involvement	
Lymph involvement	24(23.5)
Gastro-intestinal tractus	20(19.6)
Oral cavity	16(15.7)
bone	12(11.8)
skin	7(6.9)
Ear, nose, throat site	6(5.9)
lung	5(4.9)
Maxillary sinus	3(2.9)
peritoneum	3(2.9)
liver	2(2.0)
adrenal gland	2(1.9)
uterus	1(1.0)
Soft tissue	1(1.0)
Immunohistochemistry	
CD38	49/55 (89.1)
CD138	54/79 (68.3)
MUM1	77/86 (89.5)
EBER	15/36
Ki67 (median)	80.0%

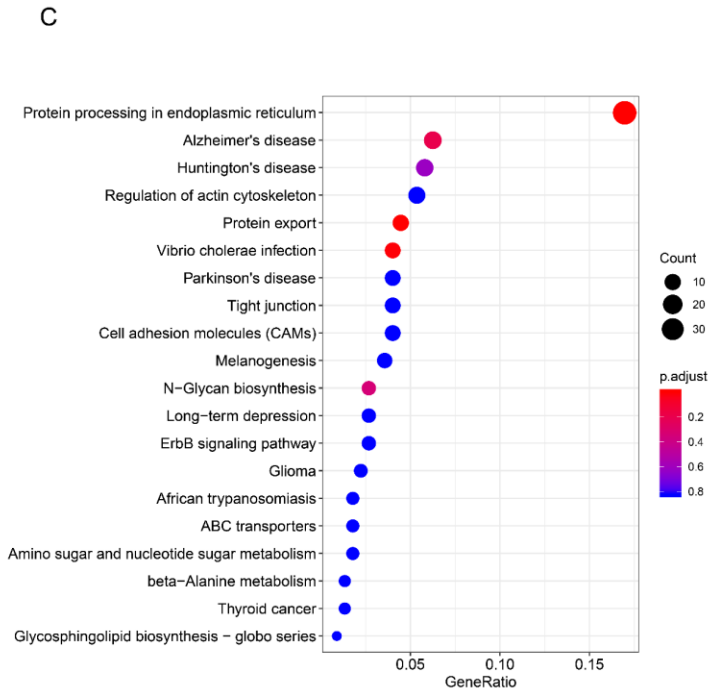
Table S3. Clinicopathologic characteristics of PBL patients and DLBCL patients for RNA sequencing in our study

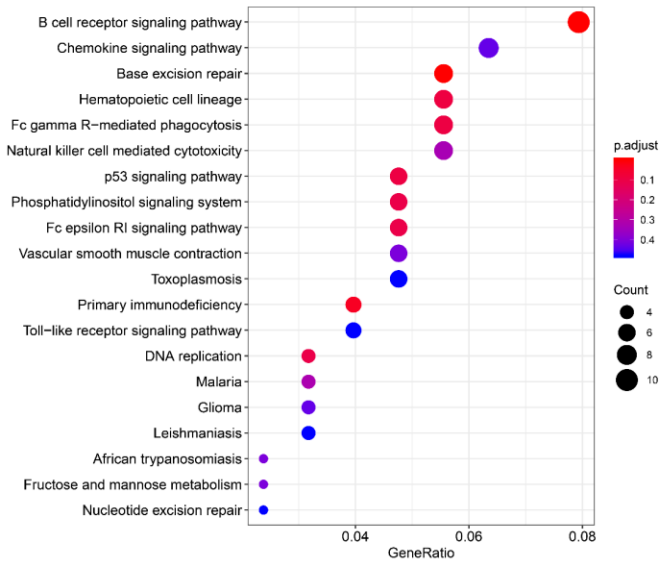
Variable	DLBCL	PBL	*P* value
Patients	11	6	
Age (years)			>0.99
>60	5	3	
≤60	6	3	
Sex			>0.99
Male	8	5	
Female	3	1	
Primary site(s)			>0.99
Lymph node	1	1	
Extranodal sites	10	5	
Ann Arbor stage			>0.99
I or II	7	4	
III or IV	4	2	

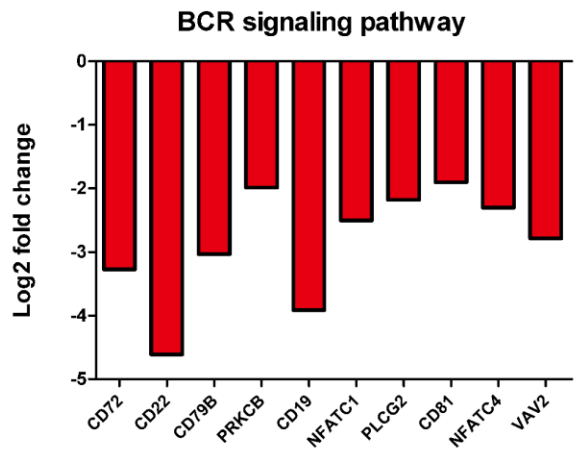
Figure S1


A
Type
GCB-DLBCL
PBL
2
1
0
−1
−2


B
GCB-DLBCL versus PBL
− 2 fold + 2 fold
Upregulate
Downregulate
AMPD1
DMP1
DCC
EIL2
ZNF608
CYB561A3
FADS3
RGL6
PPP1R12C
pval = 0.05
−log10 pvalue
log2 fold change


C
Protein processing in endoplasmic reticulum
Alzheimer's disease
Huntington's disease
Regulation of actin cytoskeleton
Protein export
Vibrio cholerae infection
Parkinson's disease
Tight junction
Cell adhesion molecules (CAMs)
Melanogenesis
N−Glycan biosynthesis
Long−term depression
ErbB signaling pathway
Glioma
African trypanosomiasis
ABC transporters
Amino sugar and nucleotide sugar metabolism
beta−Alanine metabolism
Thyroid cancer
Glycosphingolipid biosynthesis − globo series
Count
p.adjust
GeneRatio


D
B cell receptor signaling pathway
Chemokine signaling pathway
Base excision repair
Hematopoietic cell lineage
Fc gamma R−mediated phagocytosis
Natural killer cell mediated cytotoxicity
p53 signaling pathway
Phosphatidylinositol signaling system
Fc epsilon RI signaling pathway
Vascular smooth muscle contraction
Toxoplasmosis
Primary immunodeficiency
Toll−like receptor signaling pathway
DNA replication
Malaria
Glioma
Leishmaniasis
African trypanosomiasis
Fructose and mannose metabolism
Nucleotide excision repair
p.adjust
Count
GeneRatio


E
BCR signaling pathway
Log2 fold change
CD72
CD22
CD79B
PRKCB
CD19
NFATC1
PLCG2
CD81
NFATC4
VAV2

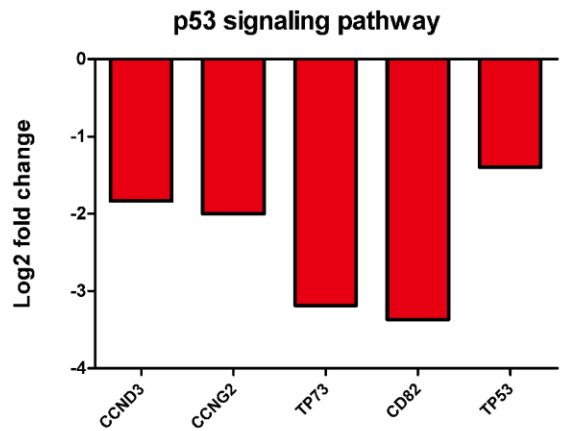
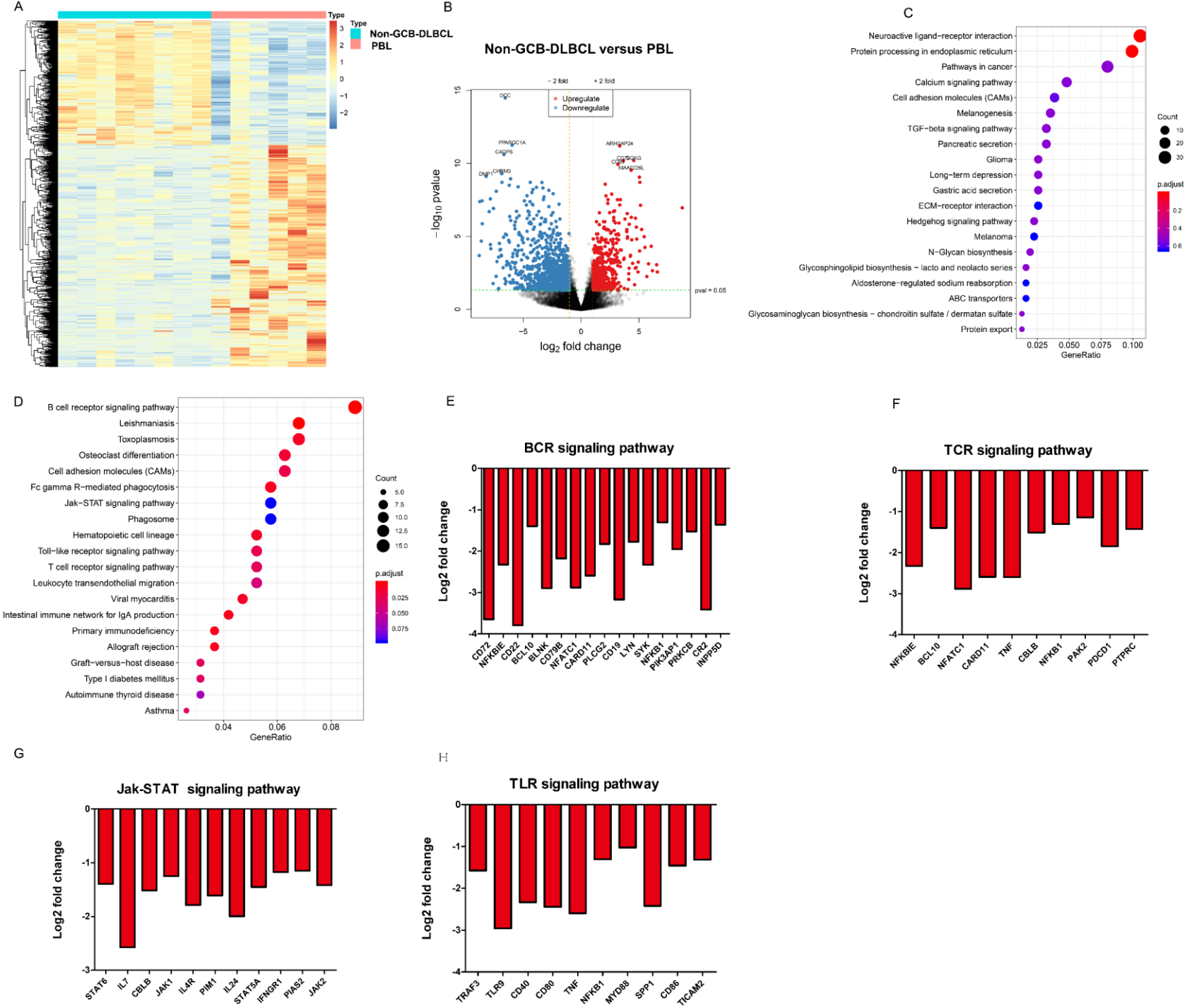

p53 signaling pathway
Log2 fold change
CCND3
CCNG2
TP73
CD82
TP53

Figure S2


A
Type
Non-GCB-DLBCL
PBL
B
Non-GCB-DLBCL versus PBL
− 2 fold
+ 2 fold
Upregulate
Downregulate
pval = 0.05
−log10 pvalue
log2 fold change
C
Neuroactive ligand−receptor interaction
Protein processing in endoplasmic reticulum
Pathways in cancer
Calcium signaling pathway
Cell adhesion molecules (CAMs)
Melanogenesis
TGF−beta signaling pathway
Pancreatic secretion
Glioma
Long−term depression
Gastric acid secretion
ECM−receptor interaction
Hedgehog signaling pathway
Melanoma
N−Glycan biosynthesis
Glycosphingolipid biosynthesis − lacto and neolacto series
Aldosterone−regulated sodium reabsorption
ABC transporters
Glycosaminoglycan biosynthesis − chondroitin sulfate / dermatan sulfate
Protein export
Count
p.adjust
GeneRatio
D
B cell receptor signaling pathway
Leishmaniasis
Toxoplasmosis
Osteoclast differentiation
Cell adhesion molecules (CAMs)
Fc gamma R−mediated phagocytosis
Jak−STAT signaling pathway
Phagosome
Hematopoietic cell lineage
Toll−like receptor signaling pathway
T cell receptor signaling pathway
Leukocyte transendothelial migration
Viral myocarditis
Intestinal immune network for IgA production
Primary immunodeficiency
Allograft rejection
Graft−versus−host disease
Type I diabetes mellitus
Autoimmune thyroid disease
Asthma
Count
p.adjust
GeneRatio
E
BCR signaling pathway
Log2 fold change
CD72
NFKBIE
CD22
BCL10
BLNK
CD79B
NFATC1
CARD11
PLCG2
CD19
LYN
SYK
NFKB1
PIK3AP1
PRKCB
CR2
INPP5D
F
TCR signaling pathway
Log2 fold change
NFKBIE
BCL10
NFATC1
CARD11
TNF
CBLB
NFKB1
PAK2
PDCD1
PTPRC
G
Jak-STAT signaling pathway
Log2 fold change
STAT6
IL7
CBLB
JAK1
IL4R
PIM1
IL24
STAT5A
IFNGR1
PIAS2
JAK2
H
TLR signaling pathway
Log2 fold change
TRAF3
TLR9
CD40
CD80
TNF
NFKB1
MYD88
SPP1
CD86
TICAM2