

Supplementary Table 4. Comparison of the expression of the mouse GC B-cell related genes in cluster 20 by human GC B cells

Cluster 20 genes ^a	Expression higher in human GC B cells when compared to the other populations ^b	<i>P</i> value (expression level in human GC B cells vs. other B-cell populations)
ADA	6.9	8.8 x 10 ⁻¹¹
AICDA	14.7	0.0006
AMZ2	2.4	3.4 x 10 ⁻⁷
<i>ARHGAP8</i>	not expressed	-
<i>BASP1</i>	no	n.s.
BMPR1A	5.2	2.5 x 10 ⁻⁷
<i>C2CD2L</i>	not expressed	-
CCRL1	4.7	0.006
<i>CDK14</i>	no	n.s.
<i>CNST</i>	no	n.s.
<i>CORO2B</i>	not expressed	-
<i>EAF2</i>	no	n.s.
<i>EFNB1</i>	not expressed	-
<i>EIF5A2</i>	not expressed	-
<i>ERP44</i>	no	n.s.
<i>FAS</i>	no	n.s.
<i>FGF11</i>	no	n.s.
GCET2	11.5	3.9 x 10 ⁻⁶
<i>GCNT3</i>	not expressed	-
GNAZ	3.7	7.6 x 10 ⁻⁵
H1FX	5.0	0.0001
<i>HAVCR1</i>	not expressed	-
<i>HELQ</i>	no	n.s.
<i>HPSE</i>	not expressed	-
<i>DIDO1</i>	no	n.s.
<i>ILDR1</i>	not expressed	-
<i>LPIN2</i>	no	n.s.
<i>MAPRE2</i>	no	n.s.
<i>MBD2</i>	no	n.s.
<i>MBD4</i>	no	n.s.
<i>MTMR14</i>	no	n.s.
MYBL1	21.0	0.0003
NEIL1	2.2	3 x 10 ⁻⁶
<i>OPTN</i>	no	n.s.
<i>PARM1</i>	no	n.s.
<i>PCYT1B</i>	no	n.s.
<i>PDZD2</i>	no	n.s.
PHF19	7.1	3 x 10 ⁻¹⁰
PLXNB2	2.8	0.009
PPAP2A	3.1	0.0002

PPP4R2	2.5	3.7 x 10 ⁻⁵
RASSF6	3.5	0.0002
RGS13	5.4	8.1 x 10 ⁻⁶
<i>RGS9</i>	no	n.s.
RNF121	2.6	0.0005
S1PR2	7.6	7 x 10 ⁻¹⁰
SLC41A2	7.3	0.0004
STAU2	7.3	3 x 10 ⁻⁸
<i>TNFSF9</i>	no	n.s.
UPRT	2.5	0.0003
<i>VWA3B</i>	no	n.s.

^a, Equivalent probe set on the Affymetrix human genome U133A Plus 2.0 gene expression array was selected.

^b, These data were performed on Affymetrix human genome U133A Plus 2.0 gene expression arrays and the expression of equivalent mouse gene probe sets were compared. Data sources: Ref. [1]; GSE12366, Ref. [2]; GSE15271, Ref. [3]. Fold change in mean gene expression level in human GC B cells when compared to naïve, memory and plasma B cells. Cluster 20 genes were identified with expression significantly > 2.0 X ($P < 0.05$) in human GC B cells when compared to B cells, naïve and memory B cells.

Gene symbols in bold type indicate those significantly higher > 2.0 X in human GC cells. “no”, gene expressed by human GC B cells but at levels which were not significantly different to those in other B-cell populations. n.s., not significant.

1. Lyons PA, Koukoulaki M, Hatton A, Doggett K, Woffendin HB, Chaudhry AN, Smith KGC. Microarray analysis of human leucocyte subsets: the advantages of positive selection and rapid purification. *BMC Genomics* 2007; **8**:64.
2. Longo NS, Lugar PL, Yavuz S, *et al.* Analysis of somatic hypermutation in X-linked hyper-IgM syndrome shows specific deficiencies in mutational targeting. *Blood* 2009; **113**:3706-15.
3. Caron G, Le Gallou S, Lamy T, Tarte K, Fest T. CXCR4 expression functionally discriminates centroblasts versus centrocytes within human germinal center B cells. *J Immunol* 2009; **182**:7595-602.