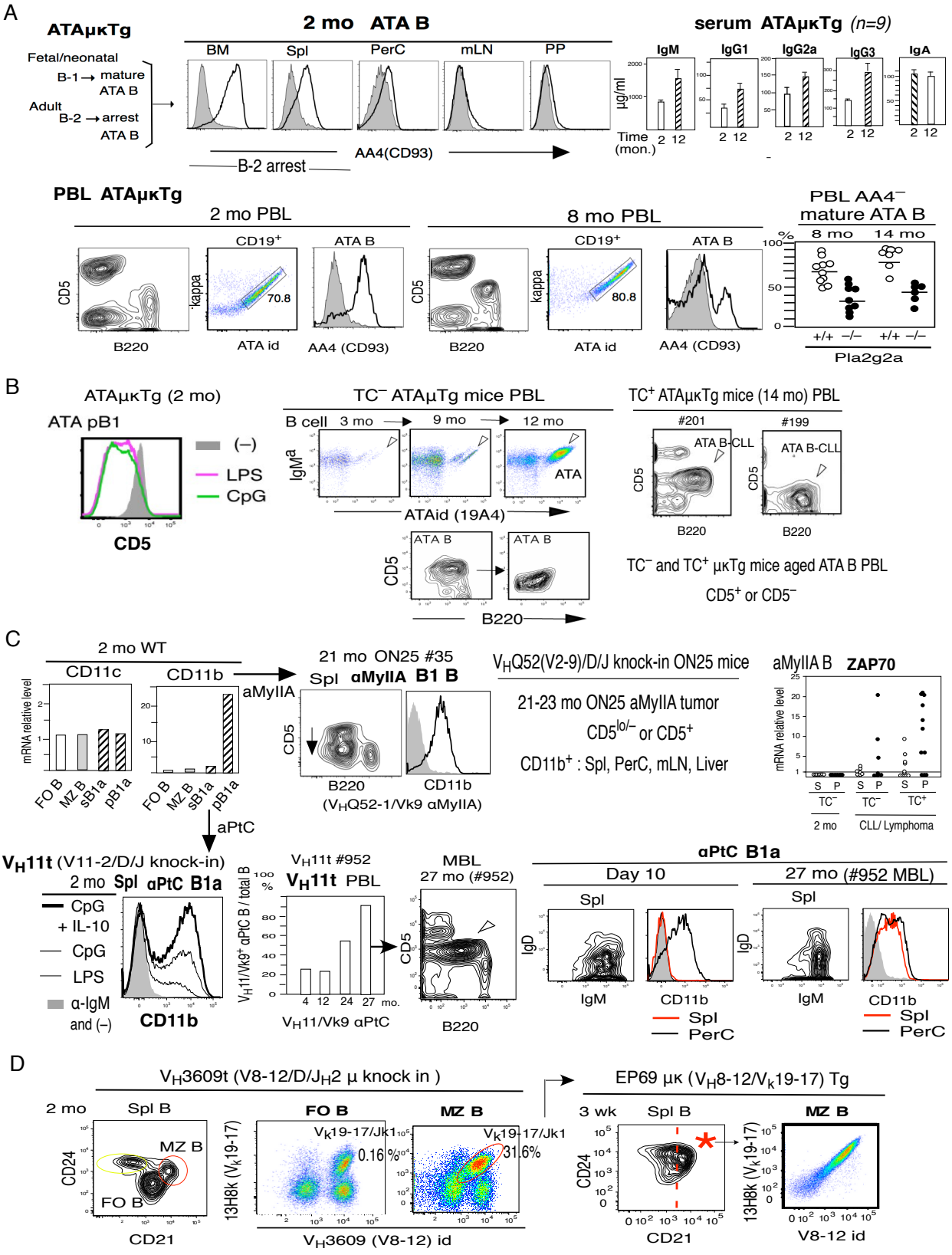
A
ATAμκTg
Fetal/neonatal
B-1 → mature ATA B
Adult
B-2 → arrest ATA B
2 mo ATA B
BM
Spl
PerC
mLN
PP
AA4(CD93)
B-2 arrest
serum ATAμκTg (n=9)
IgM
IgG1
IgG2a
IgG3
IgA
μg/ml
Time (mon.)
2 12
PBL ATAμκTg
2 mo PBL
8 mo PBL
CD19+
ATA B
CD5
kappa
70.8
80.8
B220
ATA id
AA4 (CD93)
PBL AA4− mature ATA B
8 mo
14 mo
%
+/+ −/−
Pla2g2a
B
ATAμκTg (2 mo)
ATA pB1
(–)
LPS
CpG
CD5
TC− ATAμTg mice PBL
B cell 3 mo
9 mo
12 mo
IgMa
ATA
ATAid (19A4)
TC+ ATAμκTg mice (14 mo) PBL
#201
#199
ATA B-CLL
TC− and TC+ μκTg mice aged ATA B PBL
CD5+ or CD5−
C
2 mo WT
CD11c
CD11b
mRNA relative level
FO B
MZ B
sB1a
pB1a
aPtC
21 mo ON25 #35 Spl αMyIIA B1 B
aMyIIA
(VHQ52-1/Vk9 αMyIIA)
VHQ52(V2-9)/D/J knock-in ON25 mice
21-23 mo ON25 aMyIIA tumor
CD5lo/− or CD5+
CD11b+ : Spl, PerC, mLN, Liver
aMyIIA B ZAP70
S
P
TC−
TC+
2 mo
CLL/ Lymphoma
VH11t (V11-2/D/J knock-in)
2 mo Spl αPtC B1a
CpG + IL-10
CpG
LPS
α-IgM and (–)
VH11t #952
VH11t PBL
VH11/Vk9+ αPtC B / total B
4 12 24 27 mo.
VH11/Vk9 αPtC
MBL
27 mo (#952)
αPtC B1a
Day 10
27 mo (#952 MBL)
Spl
IgD
IgM
CD11b
PerC
D
VH3609t (V8-12/D/JH2 μ knock in)
EP69 μκ (VH8-12/Vk19-17) Tg
2 mo
Spl B
MZ B
FO B
CD24
CD21
3 wk
13H8k (Vk19-17)
Vk19-17/Jk1
0.16 %
31.6%
VH3609 (V8-12) id
V8-12 id

Figure S1

Figure S1. Summary. In age, ATA B increased in PBL and CD5 can decrease, and increase of CD11b in ATA B, aMyIIA, and aPtC. V8-12 generation in MZ B cell.
(A) 2 mo ATAμκTg mice with ATA B (V_H8-12/V_k21-5) show BM and most Spl with immature $AA4^+$, different most mature in PerC, mLN, and intestinal PP. In PBL, 2 mo ATA B cells are immature, then, 8 mo B1a cells increase with higher mature ($AA4^-$) ATA B cells (1), and further increase mature ATA B in 14 mo, contrust low ATA B cells in originally Pla2g2a negative ATAμκTg mice (1). Serum IgM, IgG1, IgG2, IgG3 also increase from 2 mo to 12 mo, and IgA originally 2 mo high. **(B)** Summary (2). Left: CD5 down-regulation after stimulation of ATA B pB1 cells in ATAμkTg mice by cell proliferation by LPS or CpG in 3 days. Middle: Increased ATA B cell frequency in PBL B cells in ATAμTg mouse at 12 mo, with further B220 down and CD5 reduction. Right: CD5 down-regulation occurrance at CLL stage also in TC^+ATAμκTg mice and $CD5^+$ and $CD5^-$ CLL in PBL found in two littermates at 14 mo. **(C)** Middle: aMyIIA B1 B cells showed CD5 down and $CD11b^+$ in old aged, summary of aMyIIA B (3). Right: ZAP70 expression determined by quantitative PCR in aMyIIA B cells from the spleen (s) and peritoneal cavity (p), after the tumor stage. Relative messenger RNA transcript levels with FO B was set to 1.0. Down: Summary of V_H11t (4). Left: Three days after indicated CD11b stimulation, LPS (low), CpG, CpG+IL-10 (high), of spleen B1a cells from an adult 2 mo V_H11t mice. Middle: In PBL, 12 mo aPtC B cells are 22 % and increased 27 mo 86.7% (#952) in aPtC (V_H11/V_k9) in $CD19^+$B cells as high MBL. Right: Comparison of CD11b expression levels by aPtC B1a cells in Spl between day 10 neonate as $CD11b^-$, and 27 mo as $CD11b^+$. **(D)** Summary about AGcA μTg and AGcA μκTg mice with MZ B (5). Left: Analysis of B cell subsets in the spleen. In FO B and MZ B cells, V_H3609 (V8-12) id^+ cells marked by a vertical line. The majority of 13H8K (V_k19-17/Jk1)$^{hi/med}$ Igk B cells are present in low FOB, and MZ B cells are higher. Right: AGcA μκTg mice, as EP69. 3 wk of EP69 μκTg mice showed dominantly in MZ B cells with the V_H8-12/V_k19-17.

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