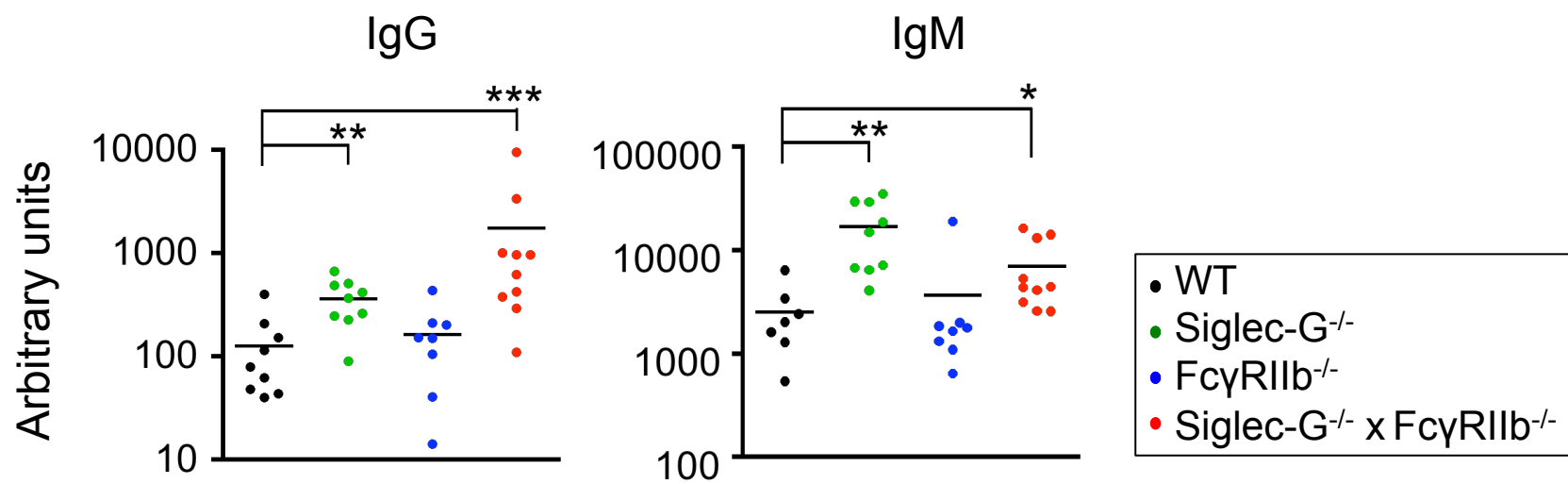


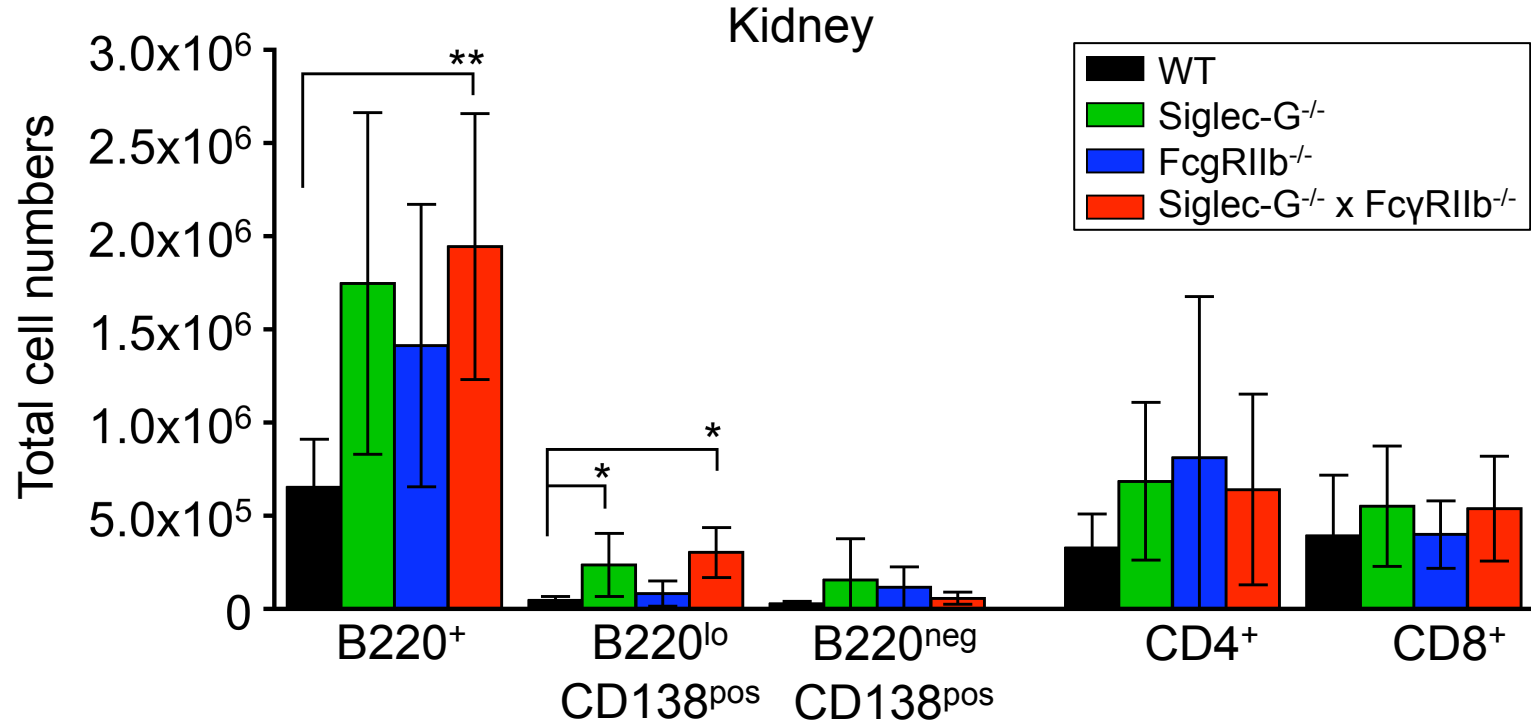
Suppl. Fig. 1

Identification of IgG⁺ plasma cells by IgG/IgD/DAPI staining. Left panels: Two typical examples of a DAPI (blue), IgG (green) and IgD (red) stained 70 weeks old Siglec- $G_{B6}^{-/-}$ x FcγRIIb $_{B6}^{-/-}$ spleen cryosection. Original magnification: 63x. Right panel: typical example of a IgG (green) and IgD (red) stained 70 weeks old Siglec- $G_{B6}^{-/-}$ x FcγRIIb $_{B6}^{-/-}$ spleen cryosection. Original magnification: 10x. Data represent typical results of one of two independent experiments.



Suppl. Fig. 2

Increased levels of IgG and IgM phosphorylcholine-specific autoantibodies in aged Siglec-G^{-/-} and Siglec-G_{B6}^{-/-} x FcγRIIb_{B6}^{-/-} double-deficient mice. Anti- PC- autoantibody titer of 48 weeks old WT (littermate controls), Siglec-G^{-/-}, FcγRIIb^{-/-} and Siglec-G_{B6}^{-/-} x FcγRIIb_{B6}^{-/-} double-deficient mice were measured by ELISA. Each symbol represents a single mouse. The graphs show the summary of two independent experiments. * $p < 0.05$; ** $p < 0.005$; *** $p < 0.001$. Mann-Whitney test.



Suppl. Fig. 3

Elevated B-cell and plasmablasts numbers in kidneys of aged Siglec-G^{-/-} and Siglec-G_{B6}^{-/-} x FcγRIIb_{B6}^{-/-} double-deficient mice. Bar graph shows summarized absolute cell numbers displayed as means ± SD for B-cells (B220⁺), plasmablasts (B220^{lo} CD138^{pos}), plasma cells (B220^{neg} CD138^{pos}), CD4⁺ and CD8⁺ T-cells. Bar graph shows the summary of 5 independent experiments. *P < 0.05; **P < 0.005. unpaired t-test; Mann-Whitney test.

	WT	Siglec-G ^{-/-}	FcγRIIb ^{-/-}	Siglec-G _{B6} ^{-/-} x FcγRIIb _{B6} ^{-/-}
Bone marrow (x10⁵)				
Immature cells (B220 ^{lo} IgM ^{med})	5.8 ± 2.9	5.6 ± 0.9	5.9 ± 2.5	8.2 ± 5.4
Transitional B cells (B220 ^{lo-hi} IgM ^{hi})	1.8 ± 0.9	1.6 ± 0.6	1.4 ± 0.7	1.9 ± 1.1
Mature B cells (B220 ^{hi} IgD ^{hi})	3.3 ± 1.5	3.1 ± 0.8	3.0 ± 1.9	3.2 ± 1.4
Plasma cells (CD138 ^{hi} Ig κ+λ light chain ^{pos})	0.2 ± 0.07	0.24 ± 0.03	0.34 ± 0.15	0.43 ± 0.14*
Spleen (x10⁶)				
Follicular B cells (CD21 ^{med} CD23 ^{hi})	18.4 ± 6	20.3 ± 8.5	25.5 ± 7.6	17.7 ± 7.9
Marginal zone B cells (CD1d ^{hi} B220 ^{hi})	1.3 ± 0.4	1.3 ± 0.8	1.7 ± 0.4	1.4 ± 0.6
B1a cells (CD5 ^{lo} B220 ^{lo})	1.5 ± 0.6	3.7 ± 2.3*	1.9 ± 0.4	2.9 ± 1.3*
T1 B cells (CD21 ^{lo} IgM ^{hi})	1.0 ± 0.4	1.2 ± 0.8	1.3 ± 0.6	1.0 ± 0.5
T1/MZ B cells (IgD ^{lo} IgM ^{hi})	3.3 ± 1.2	3.4 ± 1.2	4.4 ± 1.3	3.7 ± 1.6
T2 B cells (IgD ^{hi} IgM ^{hi})	1.0 ± 0.5	0.9 ± 0.3	1.1 ± 0.6	0.9 ± 0.3
T2/MZ B cells (CD21 ^{hi} IgM ^{hi})	1.5 ± 0.5	1.9 ± 1.2	2.6 ± 0.7*	1.8 ± 0.5
Mature B cells (IgD ^{hi} IgM ^{med})	6.7 ± 4.3	11.3 ± 8.0	10 ± 5.5	8.0 ± 3.6
Plasmablasts (B220 ^{med} CD138 ^{hi})	0.52 ± 0.23	0.95 ± 0.68	0.86 ± 0.59	0.55 ± 0.51
Plasma cells (B220 ^{neg} CD138 ^{hi})	0.18 ± 0.09	0.17 ± 0.09	0.39 ± 0.29	0.22 ± 0.11
CD4 ⁺ T cells (CD4 ⁺ CD8 ⁻)	7.0 ± 5.3	5.5 ± 3.7	6.1 ± 3.4	6.4 ± 4.7
CD8 ⁺ T cells (CD4 ⁻ CD8 ⁺)	4.6 ± 3.0	4.2 ± 2.2	4.2 ± 1.8	3.7 ± 2.7
CD4 ⁺ /CD8 ⁺ ratio	1.55 ± 0.47	1.31 ± 0.29	1.45 ± 0.29	1.69 ± 0.24
Peritoneal cavity (x10⁵)				
B1a cells (CD5 ^{lo} B220 ^{lo})	1.9 ± 1.0	12.1 ± 8.2**	1.3 ± 0.5	6.9 ± 0.5*
B1b/B2 cells (CD5 ⁻ B220 ⁺)	3.9 ± 1.6	5.0 ± 4.0	4.7 ± 3.9	5.3 ± 4.4

Suppl. Table 1 Absolute cell numbers of lymphocyte populations in 12 week-old WT (C57BL/6), Siglec-G^{-/-}, FcγRIIb^{-/-} and Siglec-G_{B6}^{-/-} x FcγRIIb_{B6}^{-/-} double-deficient mice. Cell numbers of indicated populations are given as numbers ± SD. 8-15 mice were included in quantification of total cell numbers. Significant changes are shown in bold with **p*<0.05; ***p*<0.005