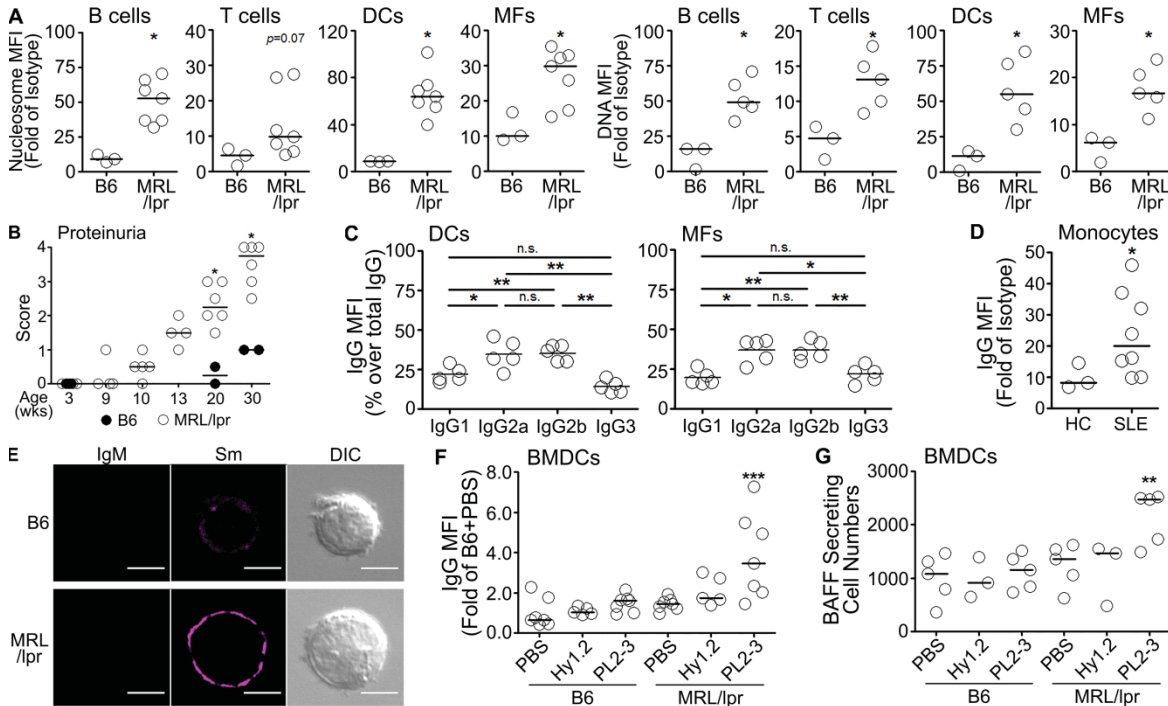


Supplemental Table 1. *Demographics, therapy, and serology of human subjects.*

	SLE Patients SLEDAI \geq 6 (n = 10)	Healthy Controls (n = 14 [†])
Mean Age (range)	30.5 yrs (21-45)	28.5 yrs (19-53)
Sex		
female	8/10	8/14
male	2/10	5/14
Race		
Caucasian	1/10	
African American	9/10	
Clinical Therapy		
Mycophenolate mofetil/Myfortic	6/10	0/14 (1ND)
Hydroxychloroquine	7/10	0/14 (1ND)
Steroid*	7/10	0/14 (1ND)
Cyclophosphamide	1/10	0/14 (1ND)
Azathioprine	0/10	0/14 (1ND)
Serology		
ANA	10/10	ND
anti-dsDNA [§]	8/10	ND
anti-Sm	6/10	ND
anti-RNP	3/10	ND
anti-SSA	5/10	ND
anti-SSB	1/10	ND
Low C3/C4	6/10 (1ND)	ND

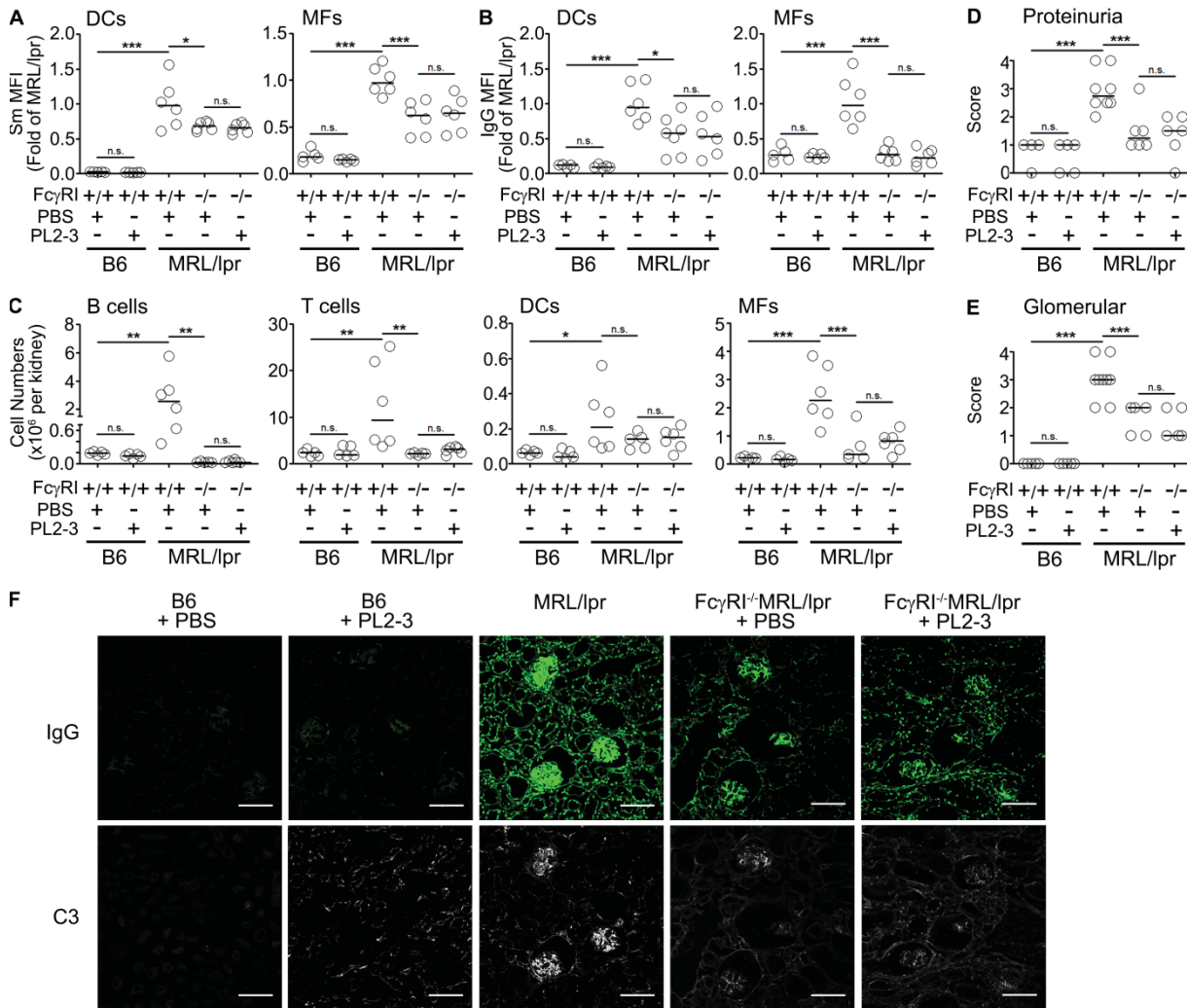
Numbers indicate patients that were treated with the listed drug at the time of blood draw, or positive for the listed serology tests anytime since diagnosis of SLE. ND = not determined; ANA = anti-nuclear antibodies; dsDNA = double stranded DNA, Sm = Smith antigen; RNP = ribonucleoprotein; SSA = Sjögren's-syndrome-related antigen A (Ro); SSB = Sjögren's-syndrome-related antigen B (La), Low C3/C4 = Decreased complement 3 and complement 4. *Steroid= All on prednisone except one solumedrol. [†]One sample was from unknown healthy subject from platelet donation center. [§]anti-dsDNA was done on the day of blood draw.

Supplemental Figure 1.



Supplemental Figure 1. Nuclear self-antigens accumulate on the surface of splenocytes in MRL/lpr mice (A). Splenic B cells, T cells, DCs, and MFs from B6 and MRL/lpr mice (15-20 weeks old) were stained for surface bound nucleosomes (left 4 panels) or DNA (right 4 panels) with anti-nucleosome (PL2-3) or anti-DNA (33H11) and analyzed by flow cytometry. (n = 3-7 mice, 2 experiments). **(B) MRL/lpr mice show high levels of proteinuria (score >2) beyond 20 weeks of age.** Proteinuria scores were measured on B6 (open circle) or MRL/lpr (dark circle) at different ages. (n = 1-6 mice per age group). **(C) IgG2a and IgG2b are the major isotypes of IgG displayed on the surface of myeloid cells from MRL/lpr mice.** The levels of surface bound IgG1, IgG2a, IgG2b, IgG3, and total IgG on DCs/MFs from MRL/lpr mice were measured by flow cytometry and % of each isotype over total IgG were graphed. (n = 5 mice, 2 experiments). **(D) Monocytes from SLE patients display surface bound IgG.** Whole blood cells from healthy controls (HC) or SLE patients with SLEDAI score >6 were analyzed for the surface bound IgG by flow cytometry. (n = 3-8, 3 experiments). **(E) IgM-ICs do not accumulated on the surface of MRL/lpr MFs.** Isolated splenic MFs from B6 and MRL/lpr mice (>20 weeks old) were stained for surface bound Sm (magenta) and IgM (green) and visualized on confocal microscopy. Representative images from 2 separate experiments. (n = 2 mice per experiment). **(F, G) Accumulation of IgG-ICs on BMDCs induces BAFF secretion.** BMDCs from B6 and MRL/lpr mice were differentiated for 7 days in the presence of 5µg/ml of PL2-3, Hy1.2, or PBS. n= 3-7 mice from 5 experiments. On day 7, **(F)** surface IgG was quantitated by flow cytometry and **(G)** BAFF secreting cells were enumerated by ELISPOT. In (A-D, F, and G), bars represent median. **p*<0.05, ***p*<0.01, ****p*<0.001, n.s.= not significant by Mann-Whitey test (A-D) or One-way ANOVA test (F, G).

Supplemental Figure 2.



Supplemental Figure 2. Passive administration of PL2-3 fails to change the levels of surface bound Sm or IgG in B6 or FcγRI^{-/-}MRL/lpr mice. B6 or FcγRI^{-/-}MRL/lpr mice (17-18 weeks old) were treated with PBS or PL2-3 (500 mg per mouse) for 5 weeks. PBS treated age-matched sick MRL/lpr mice were included as controls. (n = 5-7 mice per group, 2 experiment). Levels of **(A)** surface bound Sm, or **(B)** IgG on splenic DCs and MFs were analyzed by flow cytometry. **(C) Passive administration of PL2-3 fails to induce cell infiltration into the kidney in B6 or FcγRI^{-/-}MRL/lpr mice.** The numbers of B cells, T cells, DCs, and MFs infiltrated in the kidney were enumerated by flow cytometry. **(D, E) Passive administration of PL2-3 fails to increase renal scores of proteinuria or glomerular inflammation in B6 or FcγRI^{-/-}MRL/lpr mice.** **(D)** Proteinuria scores, **(E)** Scores for glomerular inflammation were measured using H&E stained kidney sections. **(F) Renal deposits of IgG/C3 in B6 or FcγRI^{-/-}MRL/lpr mice did not change following passive administration of PL2-3.** Snap-frozen kidney sections were stained for IgG (upper panels, green) and C3 (lower panels, gray). Representative images are displayed. Original magnification is x20. n = >5. Images are representative of 2 separated experiments. In (A-E), bars represent median. *p<0.05, **p<0.01, ***p<0.001, n.s.= not significant by Mann-Whitey test (A-E).