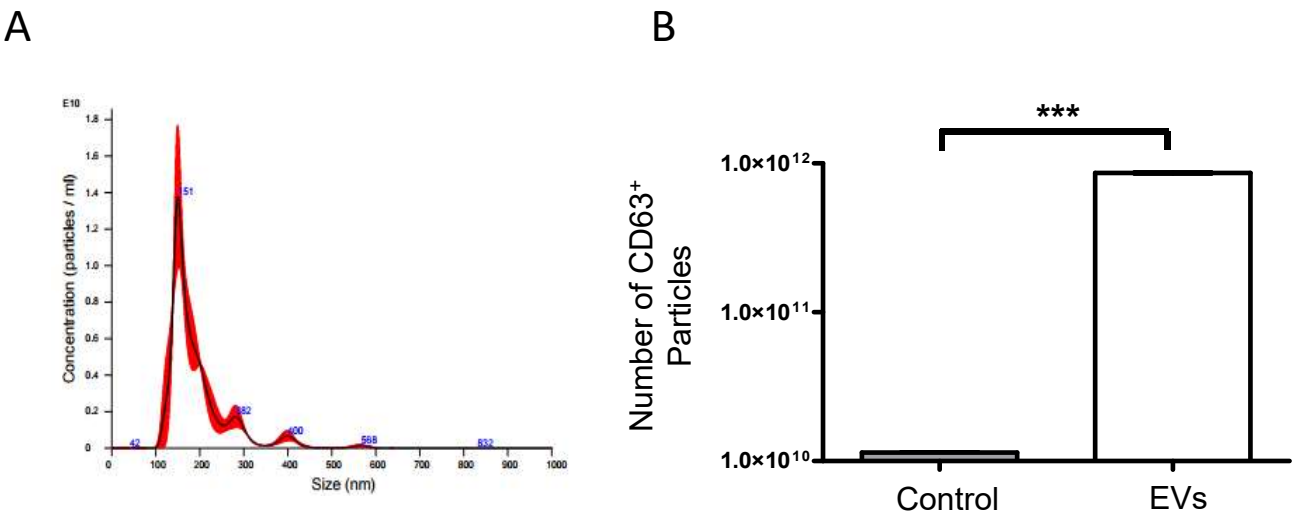
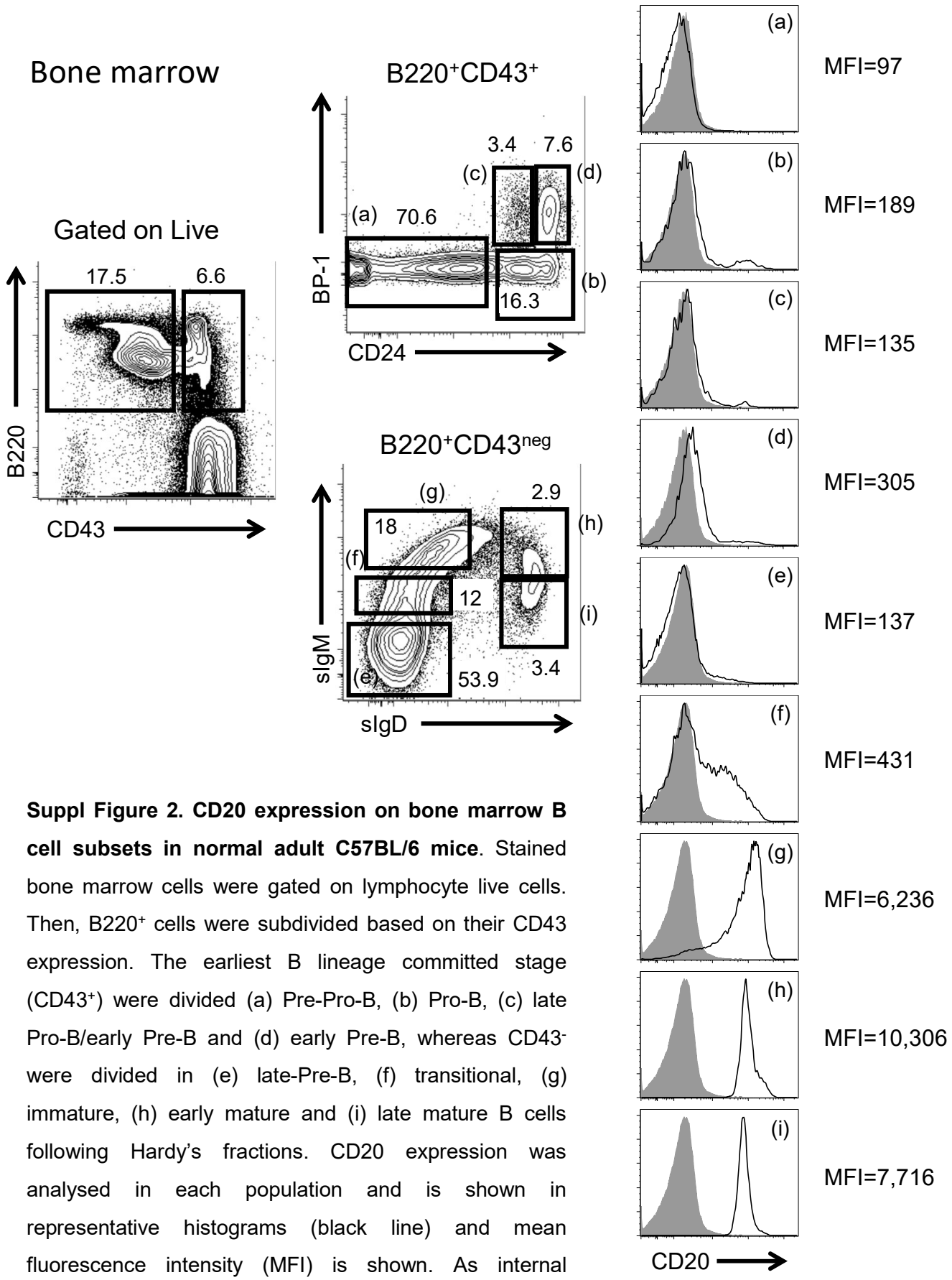
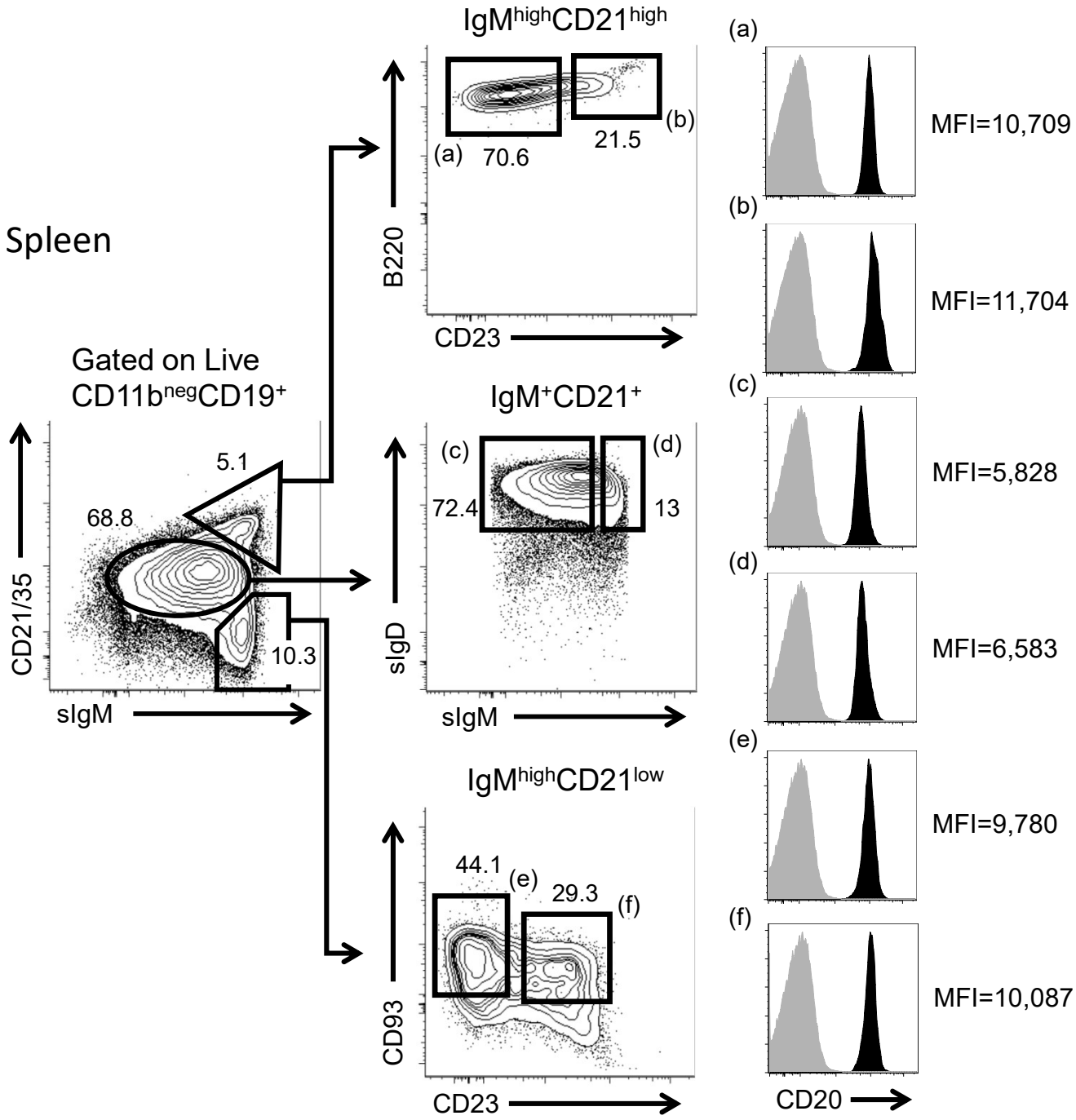


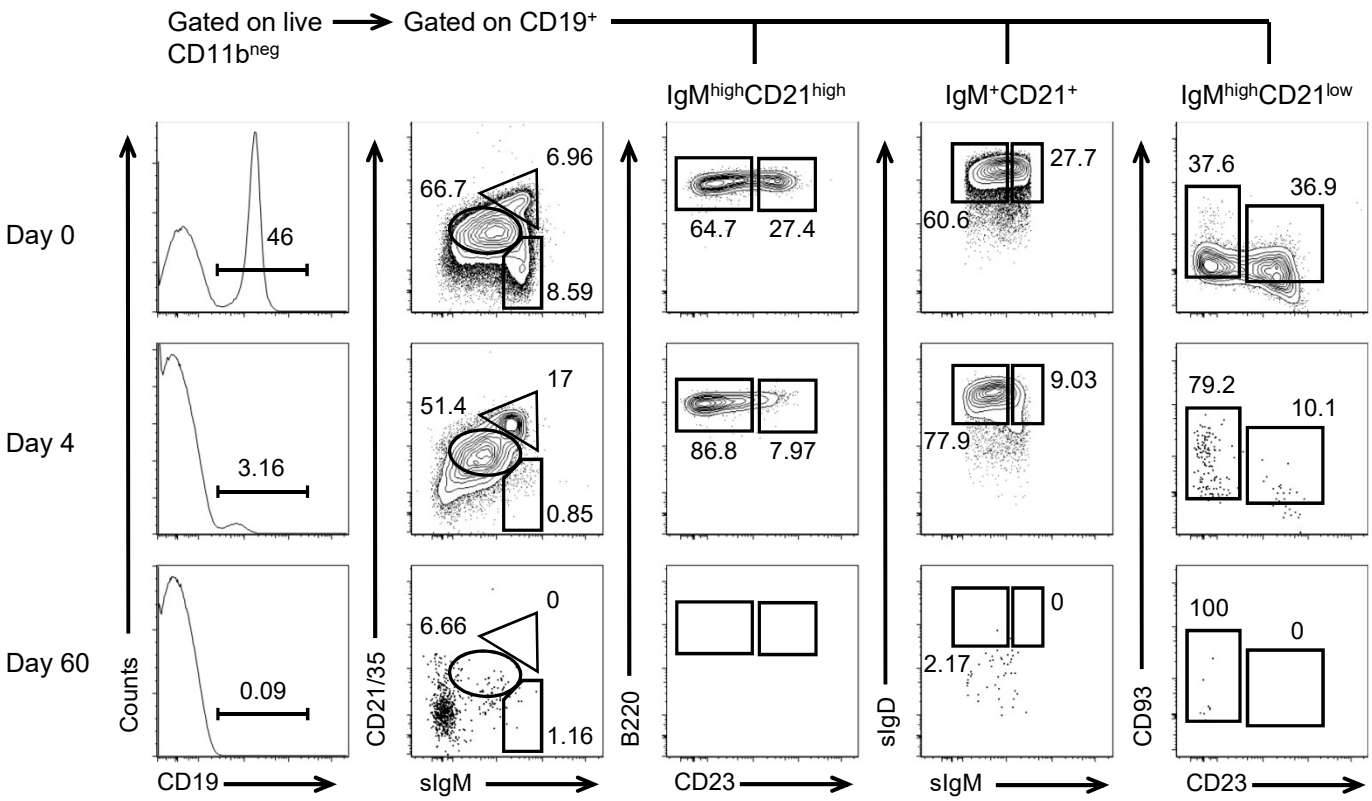
Suppl Figure 1. BMDC EVs characterisation. Representative of a size distribution plot for EVs released by DCs. The EV samples were acquired using the NanoSight LM-10 and 5 videos of 30 seconds duration were recorded. Histogram represents the mean size (nm) from all 5 measurements with the red error bars indicating mean +/- 1 SEM. Data represents 1 out of 3 independent experiments. (B) The average number of CD63+ EVs +/- SD detected from $1x10^6$ DCs (EVs) using a CD63 ExoELISA. Control = Media used to dilute the EVs. Data represents 1 experiment and represents a technical replicate. Student t-test, *** P<0.001



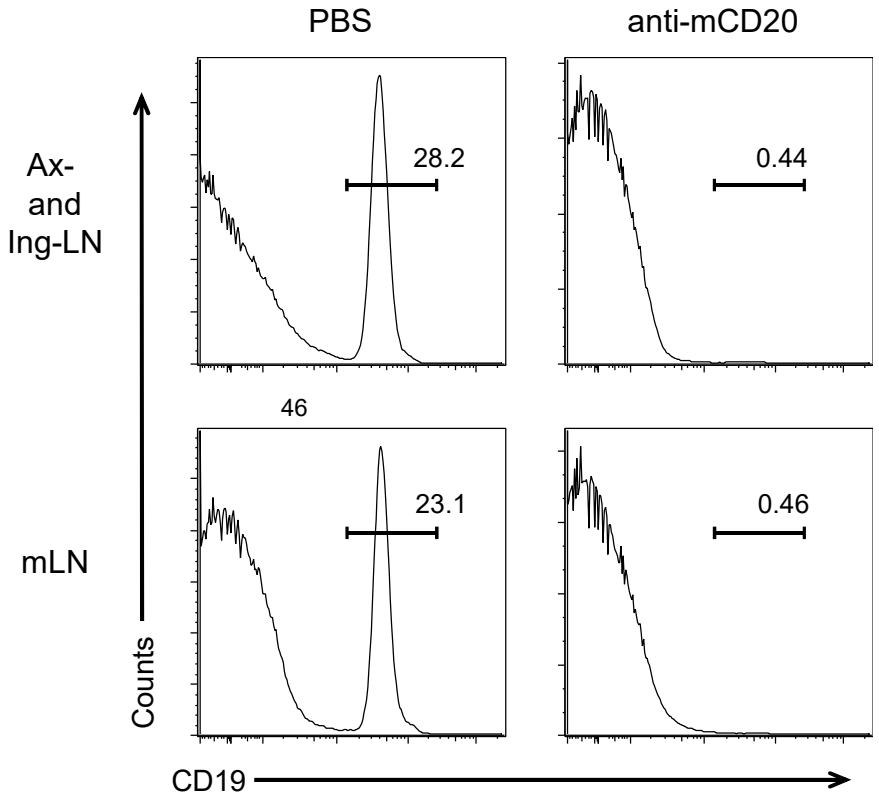
Suppl Figure 2. CD20 expression on bone marrow B cell subsets in normal adult C57BL/6 mice. Stained bone marrow cells were gated on lymphocyte live cells. Then, $B220^+$ cells were subdivided based on their CD43 expression. The earliest B lineage committed stage ($CD43^+$) were divided (a) Pre-Pro-B, (b) Pro-B, (c) late Pro-B/early Pre-B and (d) early Pre-B, whereas $CD43^-$ were divided in (e) late-Pre-B, (f) transitional, (g) immature, (h) early mature and (i) late mature B cells following Hardy's fractions. CD20 expression was analysed in each population and is shown in representative histograms (black line) and mean fluorescence intensity (MFI) is shown. As internal negative control $B220^-$ cells from the same sample are displayed as solid grey histograms. Data is representative of 3 independent experiments.



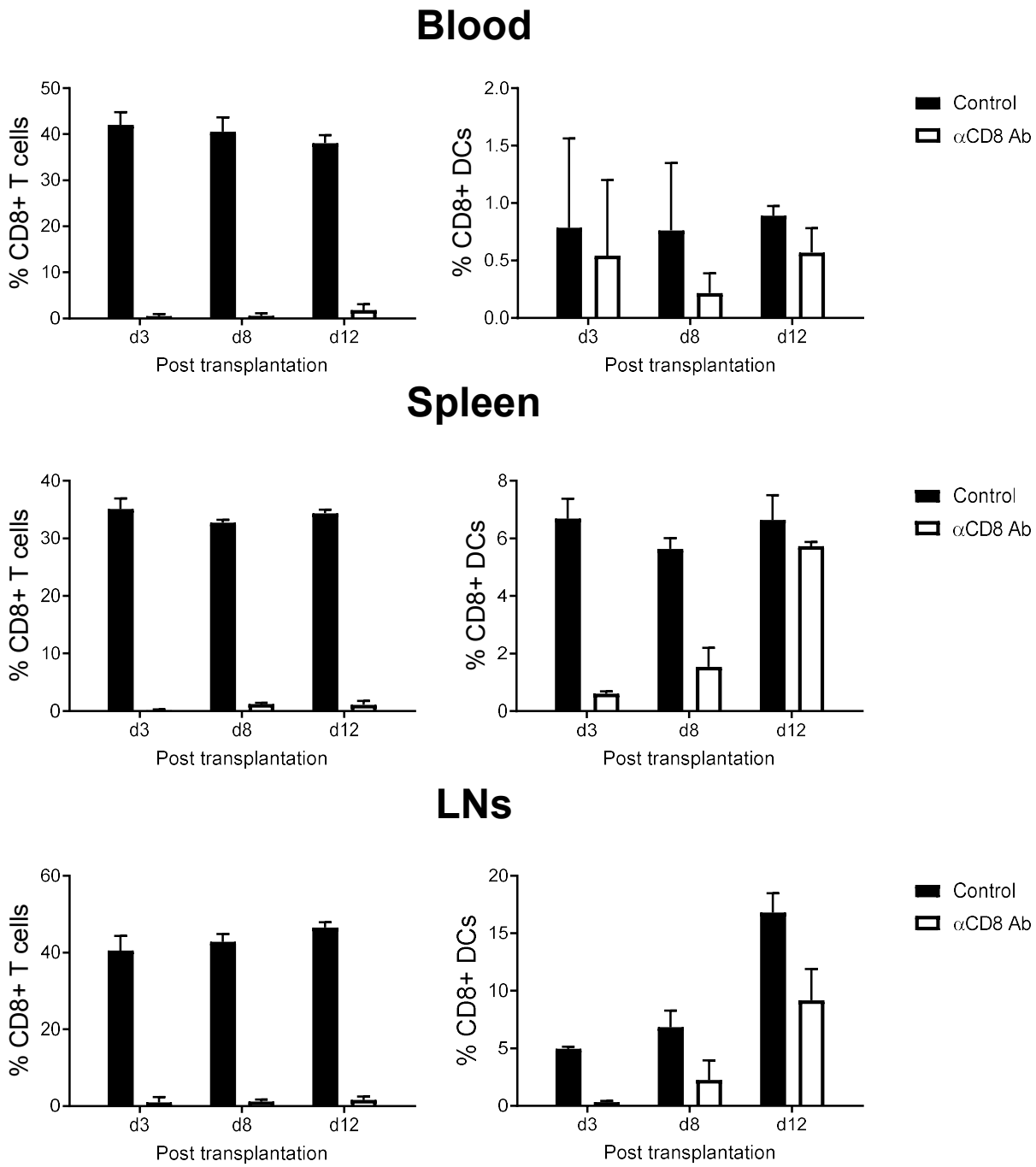
Suppl Figure 3. CD20 expression on splenic B cell subsets in normal adult C57BL/6 mice. Stained splenocytes were gated on lymphocyte live CD11b^{neg} CD19^{+} cells. Following Allman and Pillai gating strategy, cells were gated based on their CD21 and IgM surface (sIgM) expression. sIgM^{high}CD21^{high} cells were further divided into (a) transitional 1 and (b) transitional 2; sIgM^{+}CD21^{+} were divided in (c) follicular I and (d) follicular II; sIgM^{high}CD21^{+} were divided into (e) marginal zone (MZ) and (f) MZ precursor cells. CD20 expression was analysed in each population and is shown in representative histograms (black line) and MFI is shown. As internal negative control CD19- cells from the same sample are displayed as solid grey histograms. Data is representative of 3 independent experiments.



Suppl Figure 4. Anti-CD20 Ab treatment depletes mature B cells in spleen. Stained splenocytes were gated on lymphocyte live CD11b^{neg} cells. Cells were gated as shown in Figure 2. Representative histograms and plots of B6 adult at day 0 (top panels), day 4 (middle panels) and day 60 after anti-CD20 Ab (200 μg) i.v. injected mice (bottom panels).

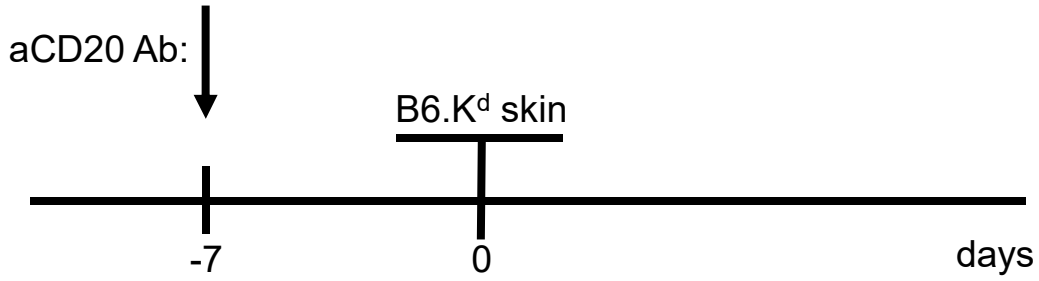


Suppl Figure 5. Anti-CD20 Ab treatment depletes mature B cells in LNs. Axillar (Ax-), inguinal (Ing-) and mesenteric lymph-nodes (mLN) were gated on lymphocyte live $CD11b^{neg}$ cells. Representative histograms show the $CD19^{+}$ (B cells) in untreated and 7 days after administration anti-CD20 Ab (200 µg) i.v. to B6 adult mice.

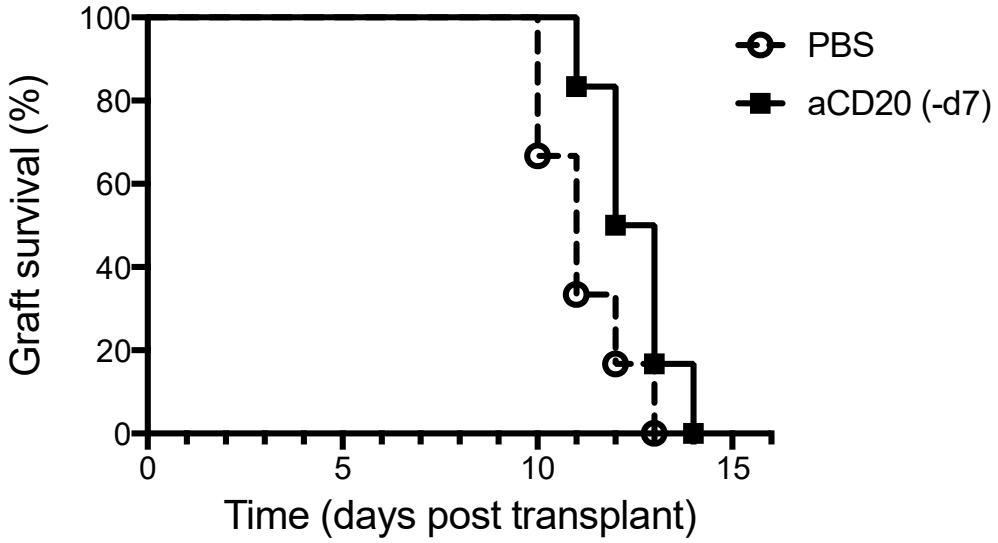


Suppl Figure 6. CD8⁺ T cells and CD8⁺ DCs kinetics after administering anti-CD8 ab. B6 mice were injected i.p. with anti-CD8 Ab (100 µg) on day -1 and +1. Controls received PBS. Mice received a dorsal B6.K^{d} skin transplant on day 0). CD8⁺ T cells and CD8⁺ DCs repopulation kinetics were follow on blood, spleen and LNs. Results are from 2 independent experiments (n=3-4/group for each experiment).

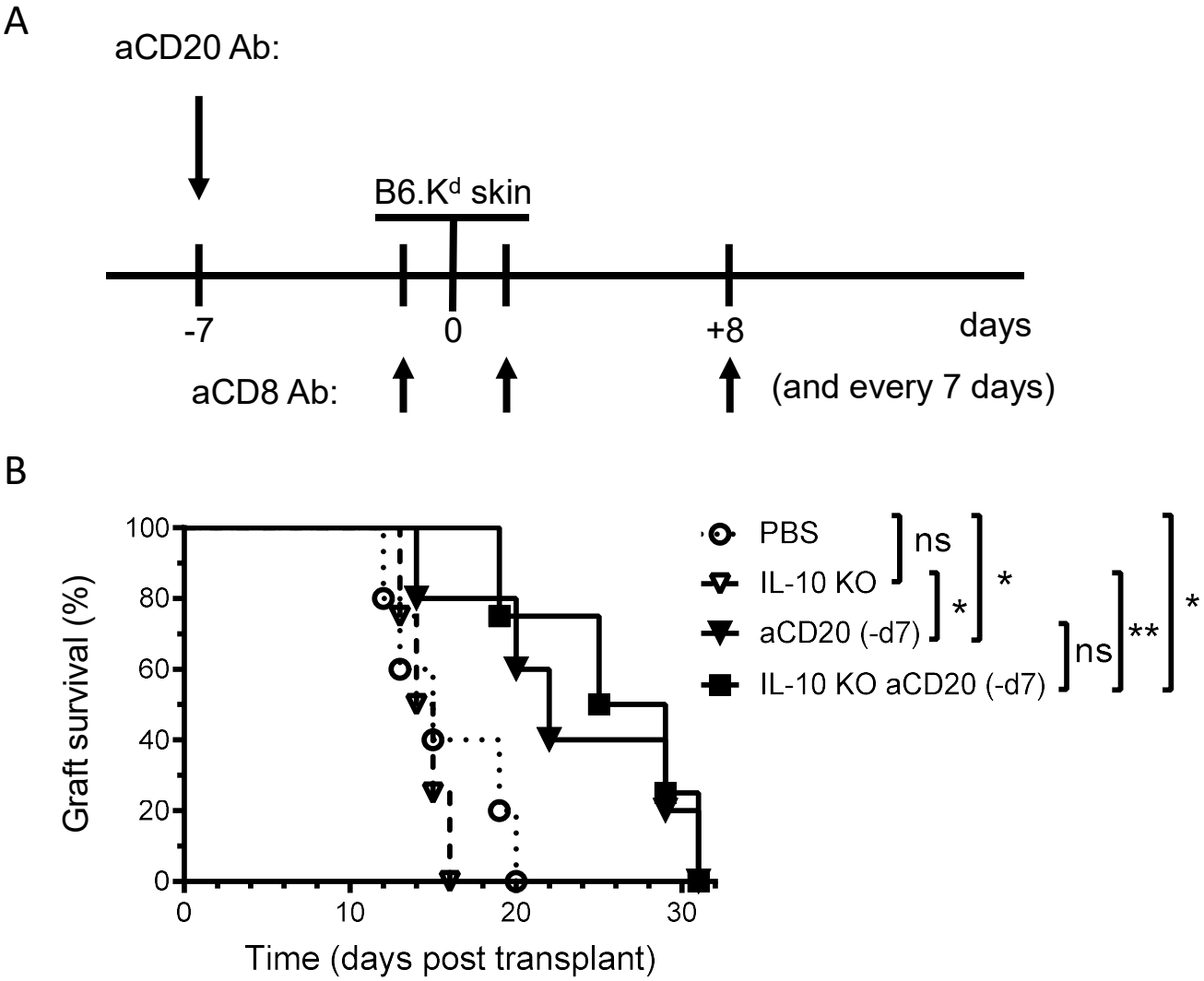
A



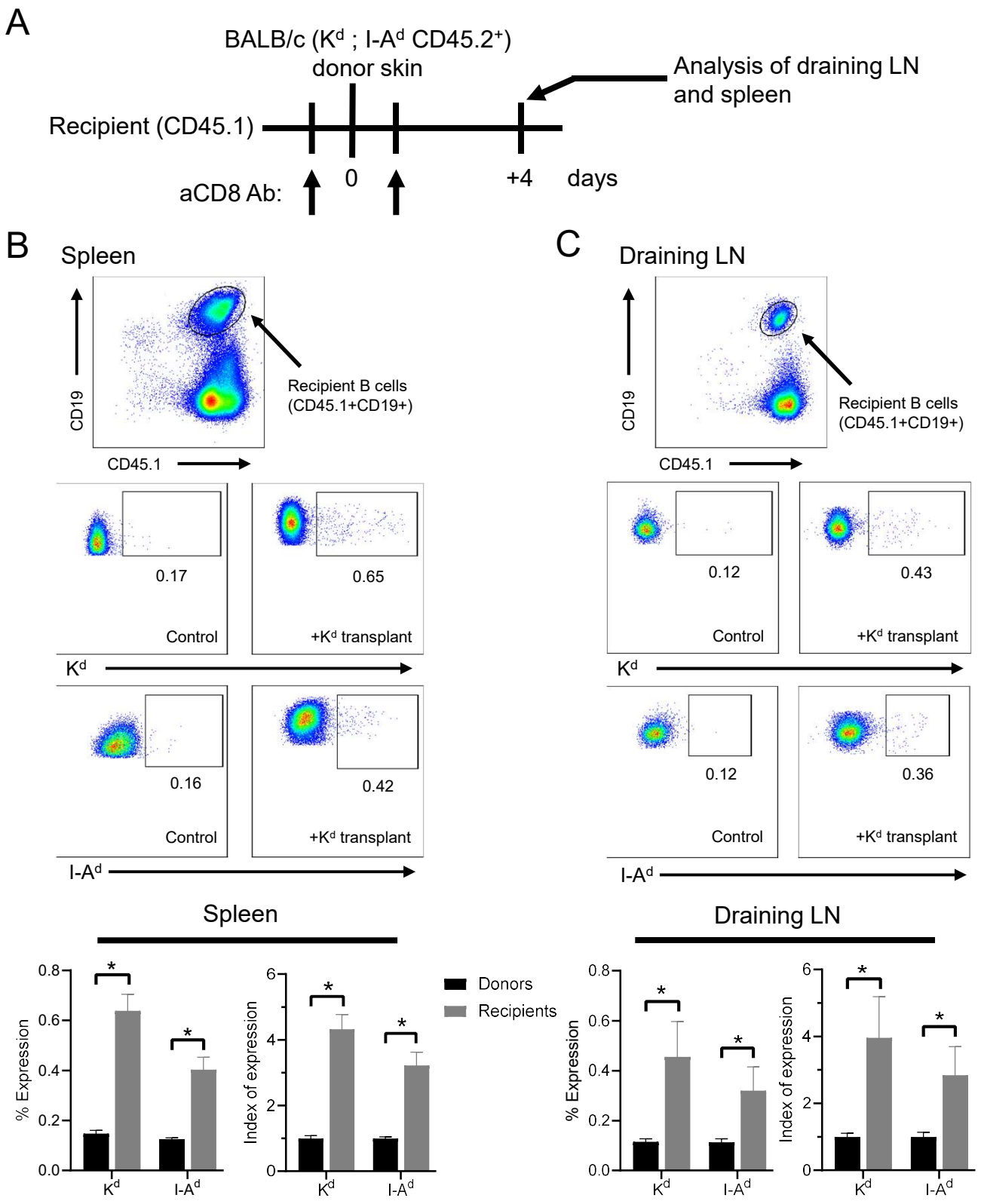
B



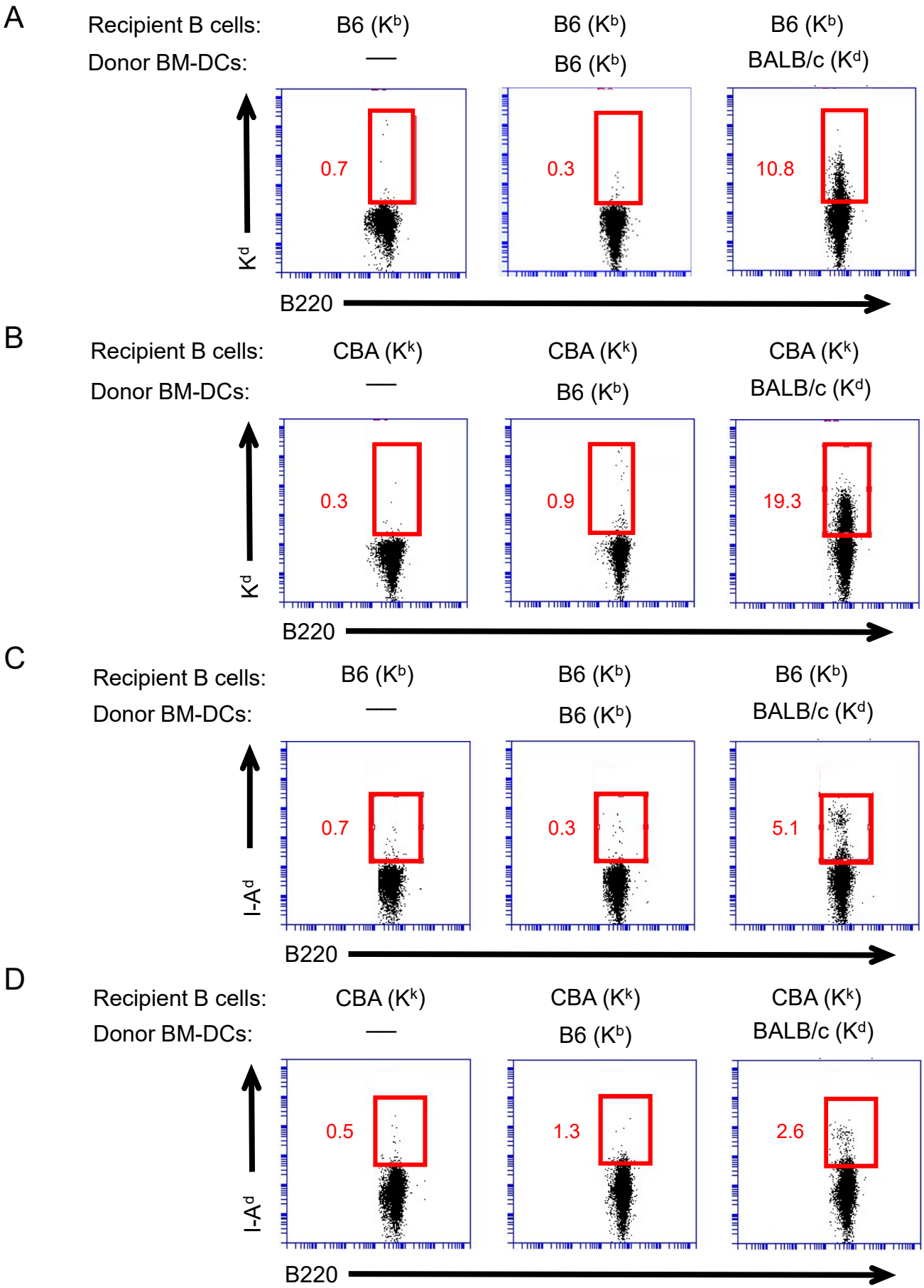
Suppl Figure 7. Anti-CD20 Ab treatment without anti-CD8 Ab conditioning does not prolonged skin graft survival. B6 mice were injected i.v. with anti-CD20 Ab (200 µg) 7 days before receiving dorsal B6.K^d skin transplant (day 0). Controls received PBS. Skin survival was monitored daily. (**A**) Experimental design (**B**) plots show cumulative data of skin graft survival from 2 independent experiments (n=5-6/group for each experiment). There was no statistical significance by log-rank (Mantel-Cox) test with Bonferroni correction for multiple comparisons.



Suppl Figure 8. Anti-CD20 Ab treatment prolonged skin graft survival independently of IL-10. B6 and IL-10 deficient mice were injected i.v. with anti-CD20 Ab (200 µg) 7 days before receiving dorsal B6.K^d skin transplant (day 0). Controls received PBS. Anti-CD8 depleting Ab was administered at day -1 and day +1 and every 7 days thereafter. Skin survival was monitored daily. (**A**) Experimental design (**B**) plots show cumulative data of skin graft survival from 2 independent experiments (n=5-6/group for each experiment). Statistics are calculated by log-rank (Mantel-Cox) test with Bonferroni correction for multiple comparisons. * P<0.05, ** P<0.01.

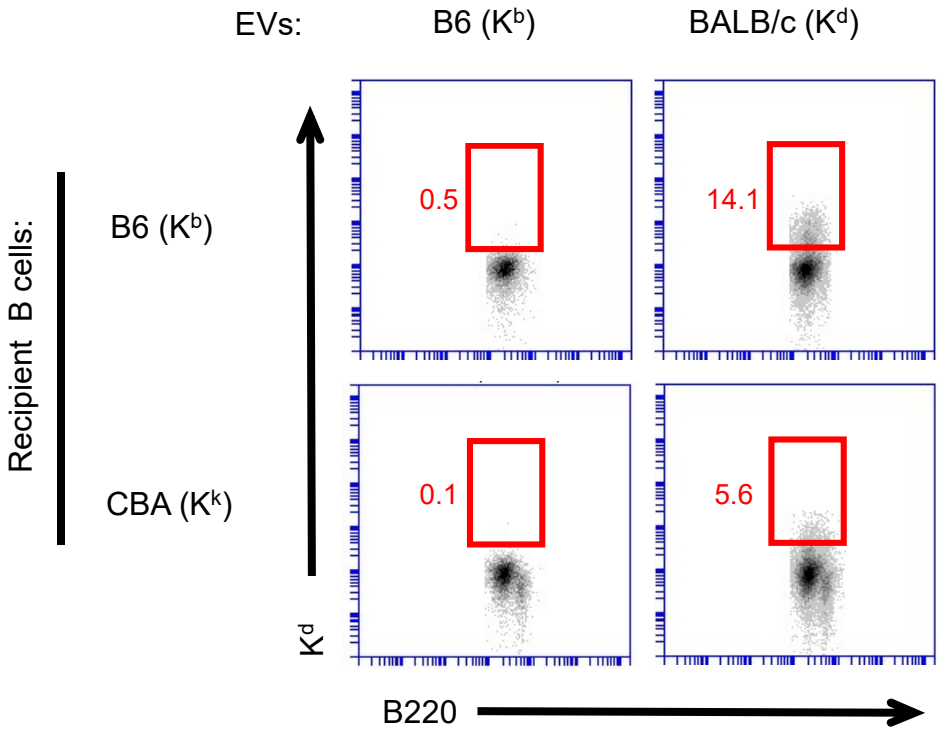


Suppl Figure 9. B cells acquire donor MHC-class I and II molecules *in vivo*. B6 (CD45.1+) mice received a dorsal BALB/c (CD45.2+) skin transplant (day 0). Anti-CD8 depleting Ab was administered at day -1 and day +1. (A) Experimental design. B cells from the spleen (**B**) and draining LN (**C**) from B6 mice naïve or transplanted with BALB/c skin (4 days post-transplant) were stained for donor antigen (K^d and I-A^d). Representative plots and quantification of K^d and I-A^d expression is shown as mean +/- SD and as index of expression. * P<0.05.



Suppl Figure 10. B cells acquire donor MHC-class I and II molecules *in vitro*. *In vitro*, purified B cells from B6 (A and C) and CBA (B and D) mice were co-cultured with BALB/c and B6 BM-DC. B6 and CBA derived B cells alone served as controls. K^d (A and B) and I-A^d (C and D) expression on B cells was analysed by flow cytometry. Representative plots of stained donors B cells for K^d and I-A^d molecules are shown.

A



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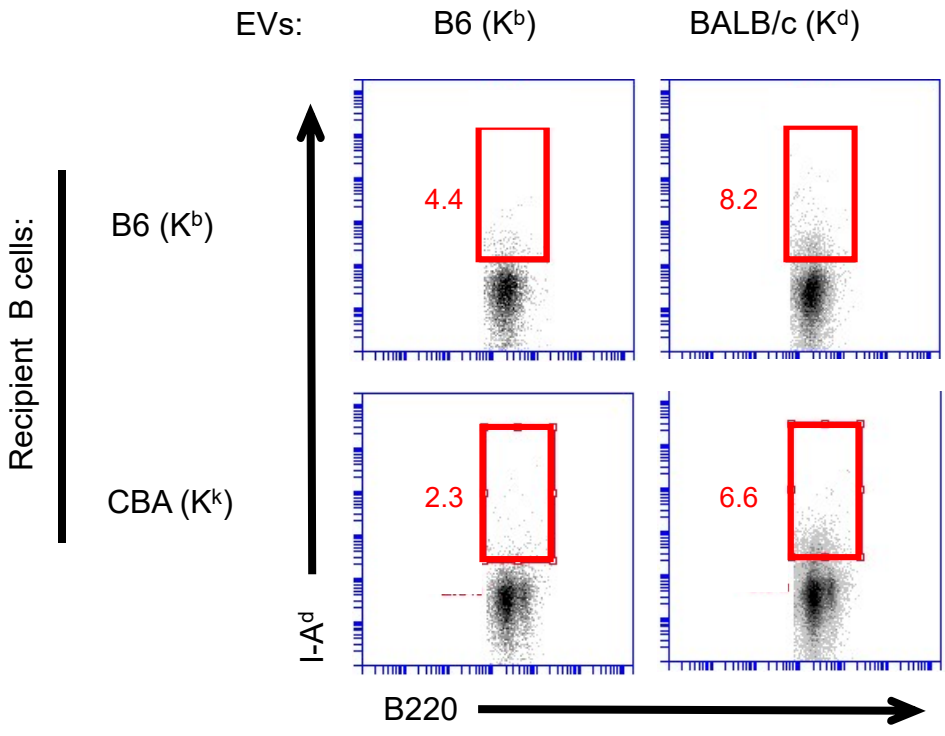

Suppl Figure 11. B cells acquire donor MHC-class I and II molecules *in vitro*. *In vitro*, purified B cells from B6 and CBA mice were co-cultured with EVs derived from BALB/c and B6 BM-DCs. B6 and CBA derived B cells alone were used to setup gates. K^d (A) and I-A^d (B) expression on recipient B cells was analysed by flow cytometry. Representative plots of stained donors B cells for K^d and I-A^d molecules are shown.