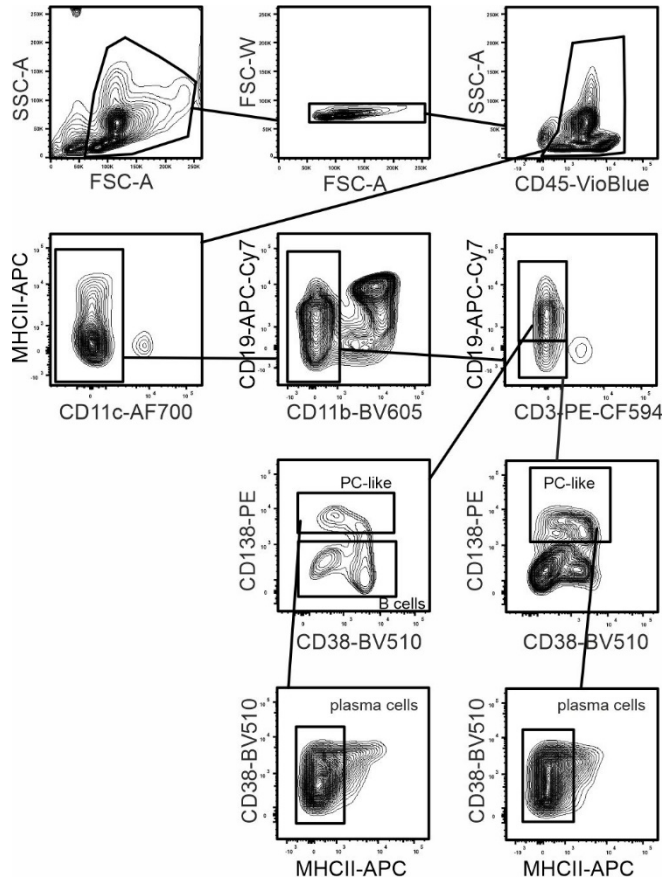


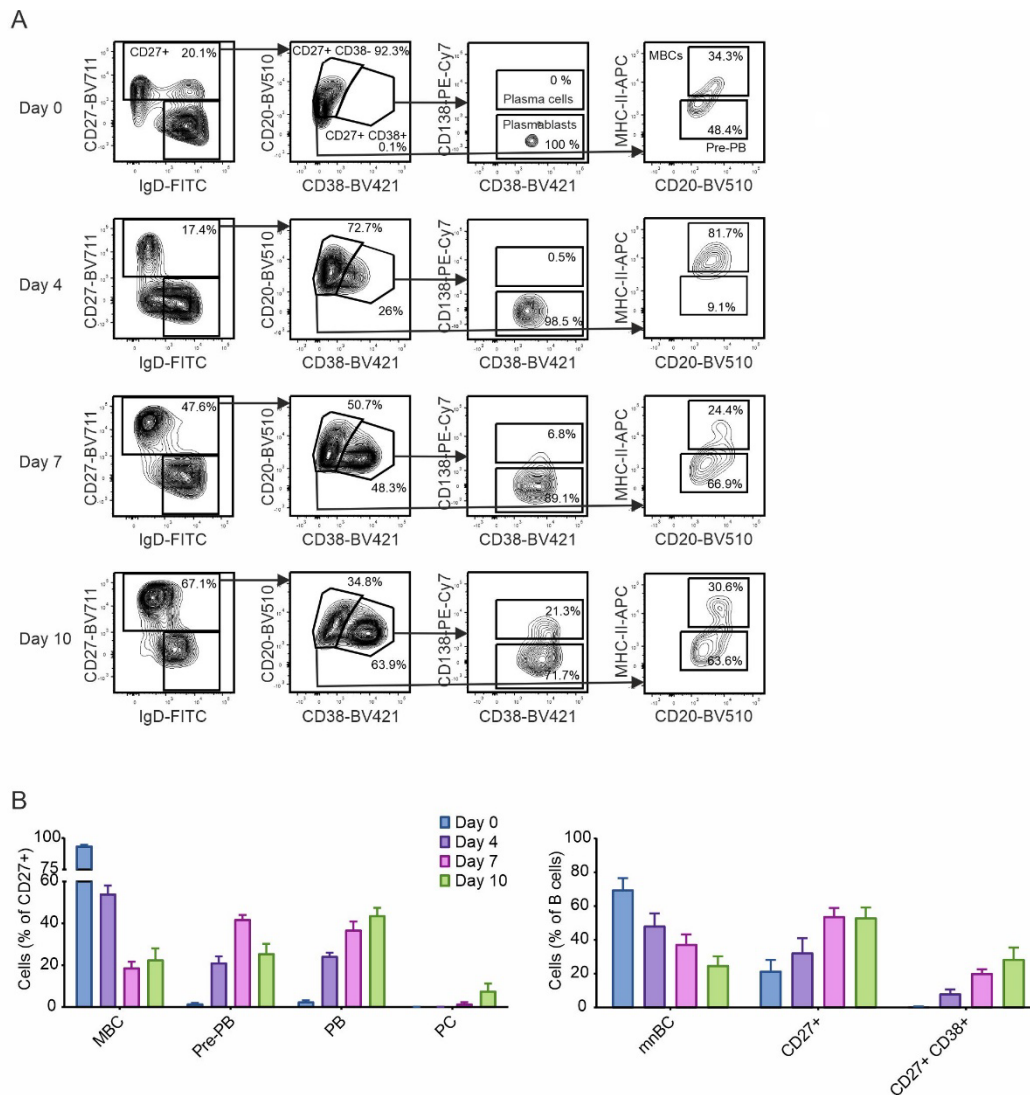
## Supplementary Figures and Figure Legends

Figure S1. Gating of mouse B cell subsets



**Figure S1. Gating of mouse B cell subsets.** First, viable cells and cell doublets were discriminated by their SSC and FSC characteristics and further characterised as immune cells (CD45<sup>+</sup>). Then, non-DCs were discriminated with CD11c and MHCII (CD45<sup>+</sup>, CD11c<sup>-</sup>, MHCII<sup>+/+</sup>). Lymphoid cells were discriminated with CD11b (CD45<sup>+</sup>, CD11c<sup>-</sup>, MHCII<sup>+/+</sup>, CD11b<sup>-</sup>). Then, CD19<sup>hi</sup> & int and CD19<sup>low</sup> & neg were discriminated with CD19 and CD3e (CD19<sup>hi</sup> & int: CD45<sup>+</sup>, CD11c<sup>-</sup>, MHCII<sup>+/+</sup>, CD11b<sup>-</sup>, CD19<sup>hi/int</sup>, CD3e<sup>-</sup>; CD19<sup>low</sup> & neg: CD45<sup>+</sup>, CD11c<sup>-</sup>, MHCII<sup>+/+</sup>, CD11b<sup>-</sup>, CD19<sup>low/-</sup>, CD3e<sup>-</sup>). From both populations, plasma cell (PC)-like cells were discriminated with CD138 and CD38 (CD45<sup>+</sup>, CD11c<sup>-</sup>, MHCII<sup>+/+</sup>, CD11b<sup>-</sup>, CD19<sup>hi/int</sup> or <sup>low/-</sup>, CD3e<sup>-</sup>, CD138<sup>+</sup>, CD38<sup>int/+</sup>), and plasma cells were discriminated from PC-like cells with CD38 and MHCII (CD45<sup>+</sup>, CD11c<sup>-</sup>, MHCII<sup>-</sup>, CD11b<sup>-</sup>, CD19<sup>hi/int</sup> or <sup>low/-</sup>, CD3e<sup>-</sup>, CD138<sup>+</sup>, CD38<sup>int/+</sup>). B cells were discriminated with CD138 and CD38 from CD19<sup>hi</sup> & int (CD45<sup>+</sup>, CD11c<sup>-</sup>, MHCII<sup>+/+</sup>, CD11b<sup>-</sup>, CD19<sup>hi/int</sup>, CD3e<sup>-</sup>, CD138<sup>-</sup>, CD38<sup>+/+</sup>).

Figure S2



**Figure S2. Human B cell differentiation to plasma cells.** (A) Gating strategy for analysis of B cell differentiation to plasma cells from day 0 to day 10. First, viable cells and cell doublets were discriminated by their SSC and FSC characteristics and further characterised as B cells after removal of dead cells and non-immune cells, then discriminated with CD27 and IgD. The CD27<sup>+</sup> cell population was separated with CD20 and CD38. CD27<sup>+</sup> CD38<sup>+</sup> cells were further discriminated with CD138 and CD38. CD27<sup>+</sup> CD38<sup>-</sup> cells were discriminated with CD20 and MHCII. Subsets were then identified as such: mnBC (CD27<sup>-</sup>, IgD<sup>+</sup>), CD27<sup>+</sup> (CD27<sup>+</sup>, IgD<sup>+/-</sup>), CD27<sup>+</sup>CD38<sup>+</sup> (CD27<sup>+</sup>, IgD<sup>+/-</sup>, CD20<sup>+</sup>, CD38<sup>+</sup>), MBC (CD27<sup>+</sup>, IgD<sup>+/-</sup>, CD20<sup>+</sup>, CD38<sup>-</sup>, MHCII<sup>+</sup>), pre-PB (CD27<sup>+</sup>, IgD<sup>+/-</sup>, CD20<sup>+</sup>, CD38<sup>-</sup>, MHCII<sup>-</sup>), PB (CD27<sup>+</sup>, IgD<sup>+/-</sup>, CD20<sup>+</sup>, CD38<sup>+</sup>, CD138<sup>-</sup>), PC (CD27<sup>+</sup>, IgD<sup>+/-</sup>, CD20<sup>+</sup>, CD38<sup>+</sup>, CD138<sup>+</sup>). The shown experiment is representative for

six individual experiments. (B) Quantification of B cell subsets is shown ( $n = 6$ ). Data are means  $\pm$ SEM.