Figure S1. **Open reading frames inserted into *Cd79b* 5′ UTRs.** The top line shows the normal mouse *Cd79b* mRNA sequence surrounding the normal translation initiation ATG codon, with the Kozak consensus sequence overlined. Below is shown the corresponding sequence of the different vectors with open reading frame insertions in the *Cd79b* 5′ UTR (5′UTR1–6). The additional start (ATG) and stop (TAG, TGA, or TAA) codons created by these insertions are highlighted in red.
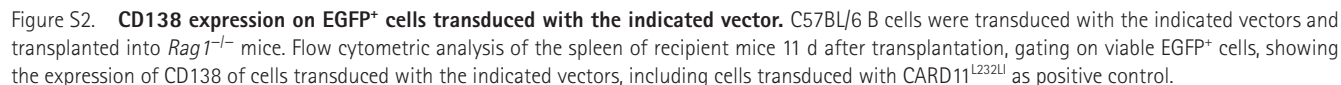

Figure S2. **CD138 expression on EGFP⁺ cells transduced with the indicated vector.** C57BL/6 B cells were transduced with the indicated vectors and transplanted into *Rag1⁻/⁻* mice. Flow cytometric analysis of the spleen of recipient mice 11 d after transplantation, gating on viable EGFP⁺ cells, showing the expression of CD138 of cells transduced with the indicated vectors, including cells transduced with CARD11^{L232LI} as positive control.

Table S1 shows gene set enrichment analysis of MYD88^{L265P}– versus CARD11^{L232LI}–expressing B cells. Table S2 shows hallmark gene sets enriched in MYD88^{L265P}– versus CARD11^{L232LI}–expressing B cells. Table S3 shows curated gene sets enriched in MYD88^{L265P}– versus CARD11^{L232LI}–expressing B cells. Table S4 shows a complete microarray dataset comparing B cells expressing MYD88^{L265P} with cells expressing empty vector, CARD11^{L232LI}, or IKBKB^{K171E}. Tables S1–S4 are provided as Excel files.