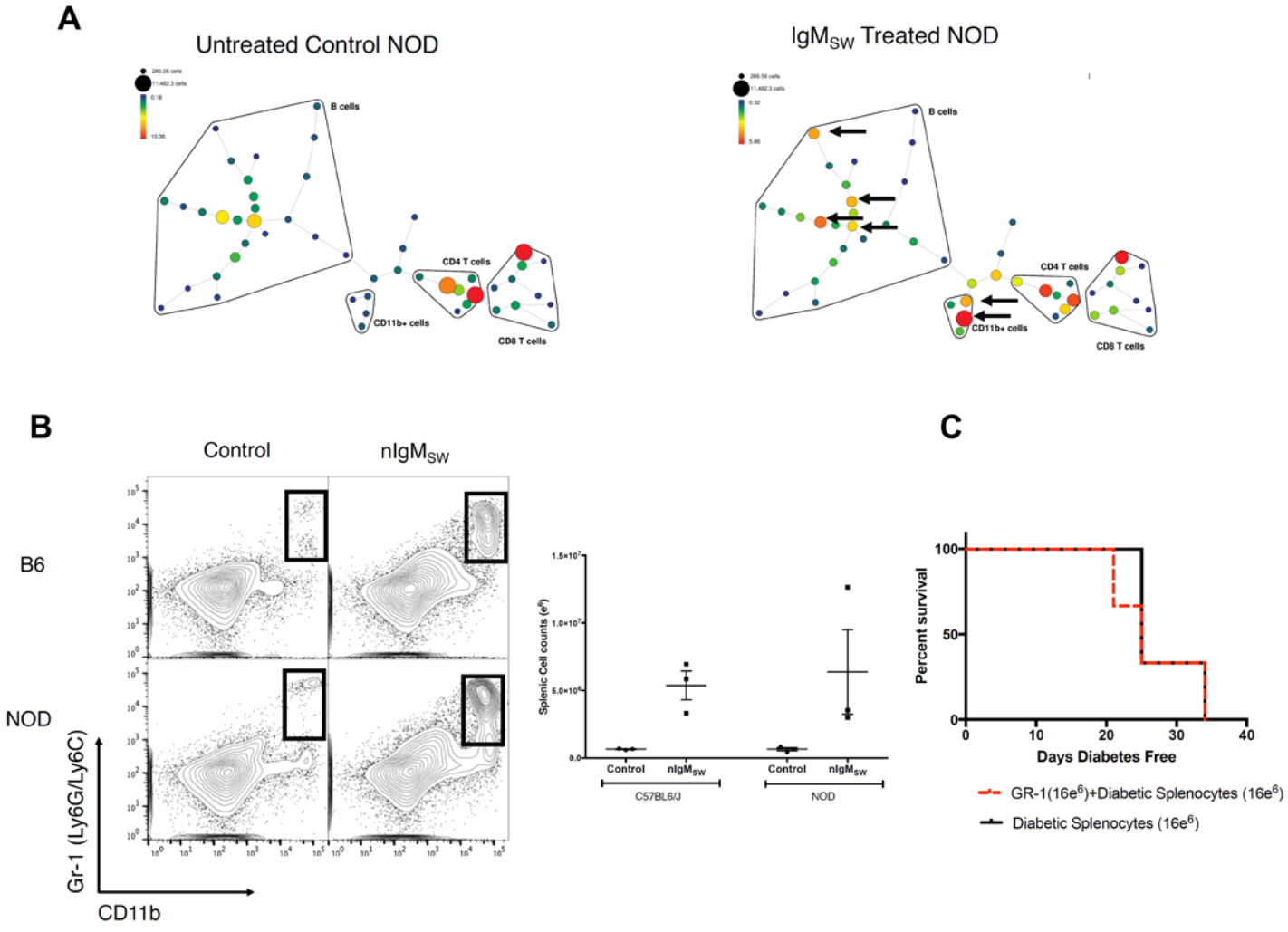
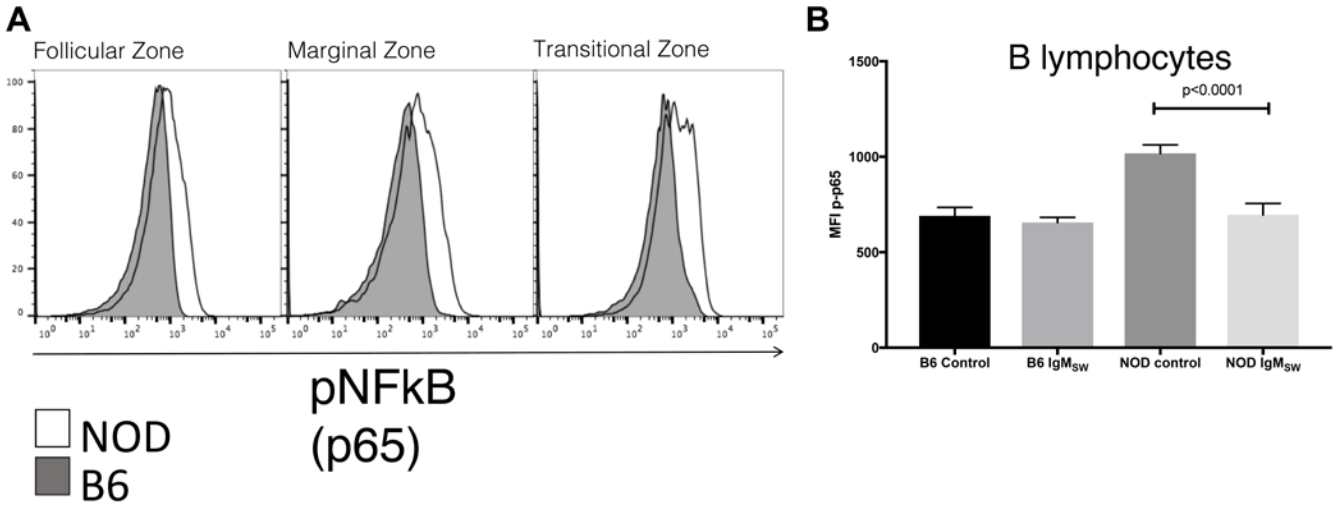
SUPPLEMENTARY DATA

Supplementary Figure 1. CYTOF reveals an nIgM$_{SW}$ mediated expansion of MDSC-like cells that provide no diabetes protection. A) nIgM$_{SW}$ mice was injected into NOD mice on days 1,3,5,7, and 10. The mice were sacrificed on day 13 and the spleen was harvested. Time of flight mass cytometry (CyTOF) was carried out utilizing 24 markers of immune cell subsets. Analysis was carried out in Cytobank using Spanning-tree Progression Analysis of Density-normalized Events (SPADE). This tree diagram depicts cells classified based on all immune markers assessed. A bubble is drawn around subsets. The size of the circle denotes the number of cell events in that circle while the color scale indicates the percentage of the total events these cells represent. This analysis revealed changes in B cells (**top black arrows**) and in GR-1+, CD11b+ cells of a Myeloid Derived Suppressor Cell (MDSC) phenotype (**bottom black arrows**). (n=3 mice per group) **B)** Treatment with IgM$_{SW}$ led to expansion of GR-1+, CD11b+ double-positive cells in the spleen of both B6 and NOD mice, as demonstrated in the flow diagrams and graph. **C)** Transfer of these MDSC-like cells with splenocytes from a diabetic donor mouse at a ratio of 1:1 into NOD.RAG mice offered no protection from diabetes onset in these mice. (n=4 per group)



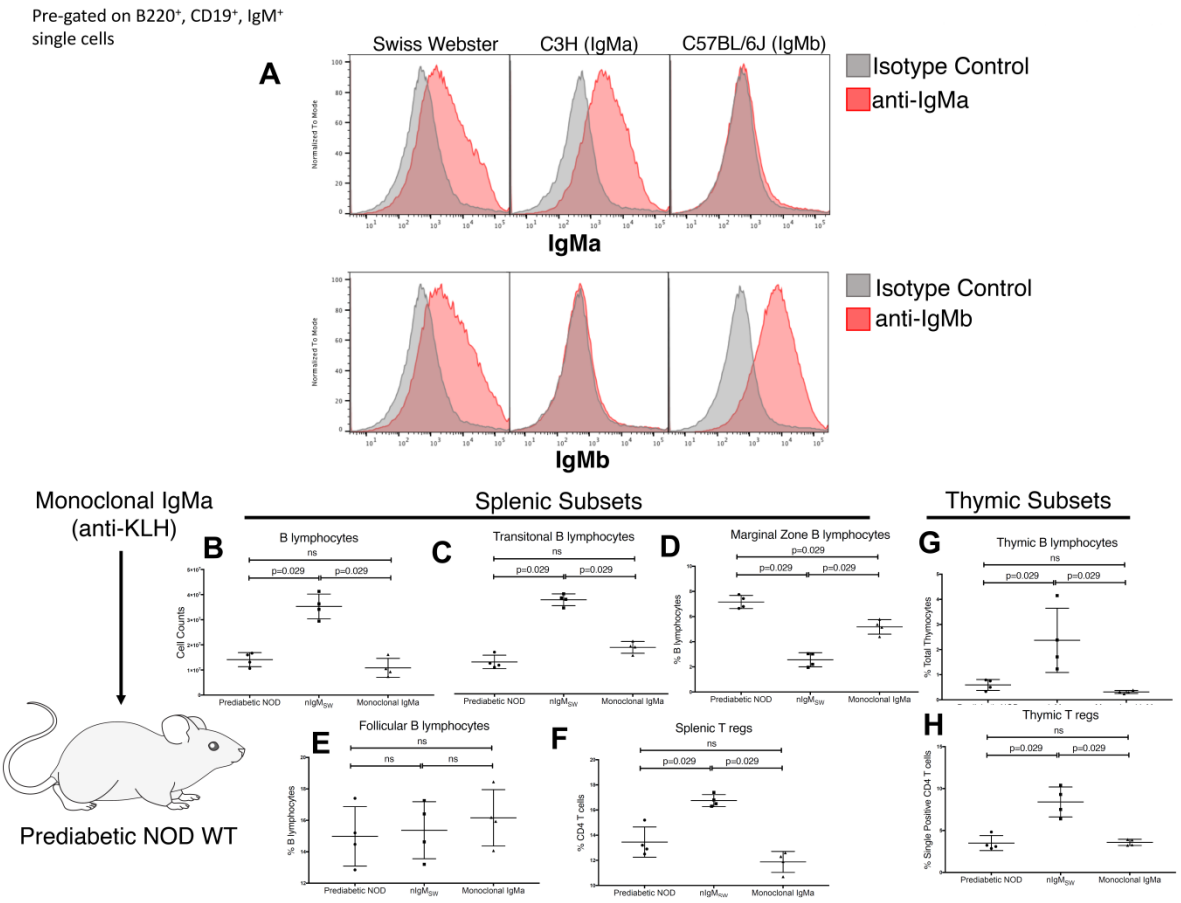
SUPPLEMENTARY DATA

Supplementary Figure 2. $nIgM_{SW}$ treatment decreases NFkB activation in NOD B lymphocytes. A) Measurement of phosphorylated-p65 revealed increased phosphorylation in all B lymphocyte subsets in NOD mice **B)** After treatment with $nIgM_{SW}$ NOD B lymphocytes demonstrated a decrease in p65 down to B6 levels



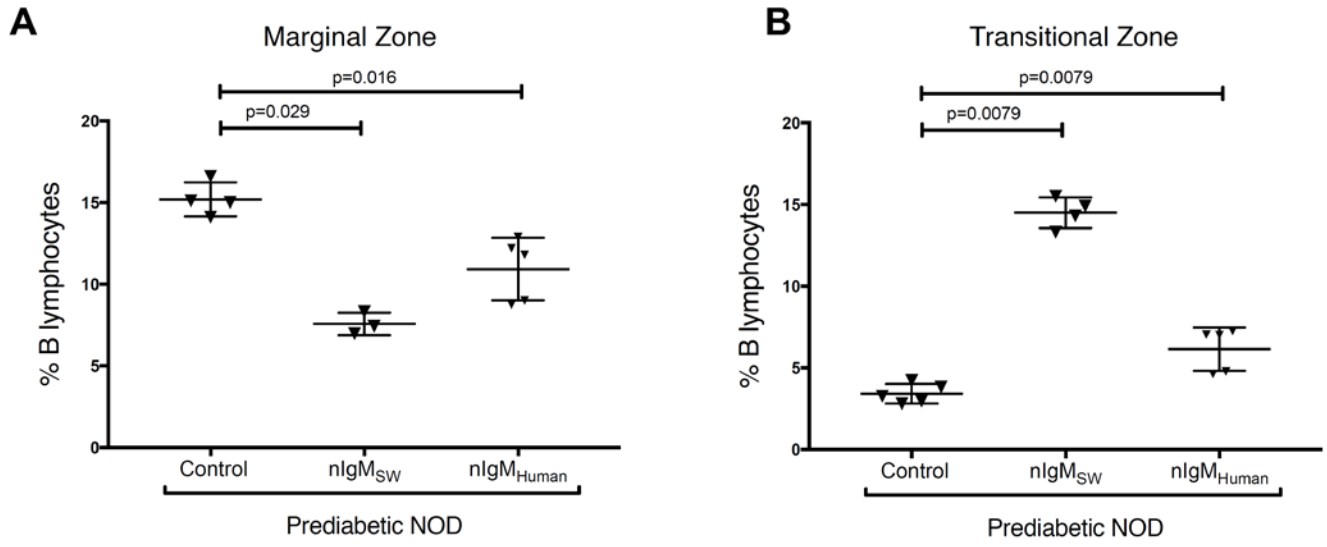
SUPPLEMENTARY DATA

Supplementary Figure 3. Swiss Webster mice express dual IgM allotypes but exert a majority of immunomodulatory effects independent of alloreactive immunity. A) Antibodies against IgMa and IgMb were utilized to determine the allotype of IgM expressed on B lymphocytes. C57BL/6J mice (IgMb), C3H (IgMa) were compared to Swiss Webster to determine efficacy on antibody staining. As characteristic of an outbred strain, the IgM loci was heterozygous for both IgMa (top row) and IgMb (bottom row). **B)** To determine whether alloreactivity played a role in mobilizing immune changes in the immune compartment in NOD mice, we treated mice with IgMa raised against KLH at the same dosage as $nIgM_{SW}$. We observed no changes in total B lymphocyte numbers. **C)** There were no changes in transitional B lymphocyte subsets and only a moderate decrease in marginal zone B lymphocytes. **D**) Similar to $nIgM_{SW}$, there were no changes in follicular B lymphocytes. **F)** Splenic Tregs were not expanded by IgMa as compared to $nIgM_{SW}$. **G)** Thymic B lymphocytes were also not impacted by IgMa and as a consequence neither were thymic Tregs. Quantified in **H.**



SUPPLEMENTARY DATA

Supplementary Figure 4. Human IgM moderately impacts B lymphocyte homeostasis. A) Human IgM moderately reduced the marginal zone B lymphocyte subset. **B)** Transitional B lymphocytes were also moderately increased by Human IgM indicating an effect on B lymphocyte homeostasis.



Supplementary Table 1. A list of antibodies and metal conjugates utilized for Time of Flight Mass Cytometry (CyTOF) to phenotype treated mice.

Antibody	Metal Conjugate
CD48	(sm154)di
CD45	(sm147)di
CD5	(gd160)di
CD43	(nd146)di
CXCR5	(nd142)di
CD9	(gd158)di
CD23	(tb159)di
CD1d	(dy162)di
CD44	(yb171)di
CD86	(yb172)di
B220	(yb176)di
CD11b	(sm148)di
CD40	(dy161)di
CD54	(dy163)di
CD21	(yb168)di
CD3e	(sm152)di
IgM	(eu151)di
CD8a	(eu153)di
IAIE	(yb174)di
CD4	(nd145)di
CD19	(sm149)di
IgD	(nd150)di
CD38	(lu175)di
Cisplatin	(pt195)di