

**SUPPLEMENTAL FIGURE 1.** CD151 deficiency does not affect basal phenotype of BMMCs. Flow cytometry analysis showed no differences in surface expression of Fc $\gamma$ RII/III, CD9 or CD63 in BMMCs. For all flow cytometry histograms, WT BMMCs are shown as gray filled histograms with dotted lines and CD151<sup>-/-</sup> BMMCs as transparent histograms with solid lines. Transparent histograms with dotted lines represent negative wild type controls. Transparent histograms with dash lines represent negative CD151<sup>-/-</sup> controls. All data are representative of three independent experiments.



**SUPPLEMENTAL FIGURE 2.** Time-dependent calcium flux under varying stimulant concentrations. Representative experimental data for individual concentrations of stimulant in wildtype and CD151-/- BMMCs. The fluo-4 loaded cells were analyzed by flow cytometry for 25 seconds to establish a pre-stimulation baseline, then stimulated and further analyzed for 30 seconds. The data was graphed on FlowJo 10 as FITC vs. Time. Depicted above the pre- and post-stimulation data is the median of the FITC signal for the collected time period.



**SUPPLEMENTAL FIGURE 3.** Gene expression of cytokines and chemokines determined by qPCR in BMMCs unprimed or primed with 0.5  $\mu$ g/ml anti-DNP IgE and then exposed to 0.5

 $\mu$ g/ml DNP-HSA for 5 hours. **A.** Increased IL-4, IL-13 and TNF- $\alpha$  release by CD151<sup>-/-</sup> BMMCs after IgE/Ag stimulation. **B.** No significant differences in expression of IL-9, IL-10, CCL1 and CCL2 were detected between IgE-activated WT and CD151<sup>-/-</sup> BMMCs. All data represent at least three experiments. Black columns, WT; white columns, CD151<sup>-/-</sup>. \*p < 0.05.



**SUPPLEMENTAL FIGURE 4.** Complete scanned Western Blots from Figure 6 immunoblotting experiments.