

Supplemental FIG 1: Serum histamine levels in female and male WT and CRF₂^{-/-} mice. 6-8 week old female and male WT and CRF₂^{-/-} mice were sensitized overnight with IgE (i.p. injection) and challenged with either PBS vehicle (Control) or anti-IgE DNP to induce passive systemic anaphylaxis (PSA). Serum histamine levels were measured at 30 min post-vehicle or DNP challenge. Data are means ± SEM from a representative experiment with n=7 animals per group. Data were analyzed using a 2-way ANOVA, *p<0.05, ***p<0.001. Experiments were repeated in 2 independent experiments.

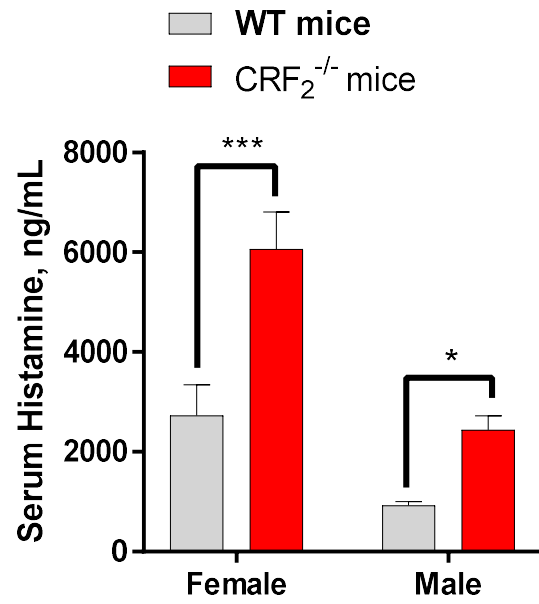
Supplemental FIG 2: Phenotype and morphology of CRF₂^{-/-} BMMCs. **A:** Representative image of 6-week old WT and CRF₂^{-/-} BMMCs stained with Toluidine blue. **B:** β-hex measured in cell pellets from WT and CRF₂^{-/-} BMMCs. **C:** Flow cytometry analysis of WT and CRF₂^{-/-} BMMCs double stained for c-kit (Pacific blue-labeled cells, Y-axis) and FcεR1 (PE-labeled cells, X-axis). **E-G:** Mean fluorescence intensity (MFI) analysis for c-kit and FcεR1, and the % of c-kit/FcεR1 double-positive cells. **H:** Flow cytometry analysis of BMMCs stained with

726 primary CRF₂ antibody (right panel) or relevant isotype and secondary antibody controls (left,
middle panels) as described in the materials and methods section.

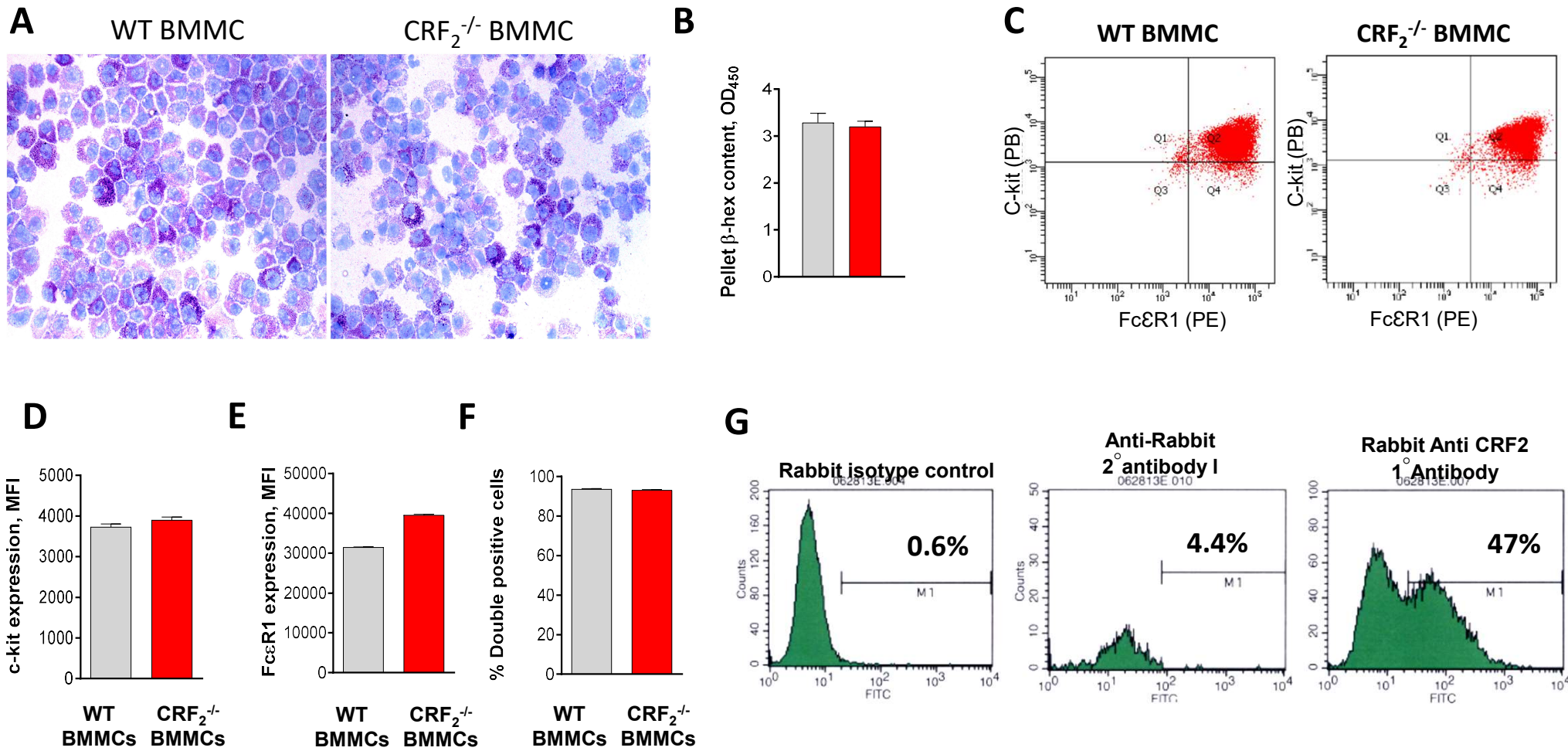
728 **Supplemental FIG 3.** Expression of CRF₁ and CRF₂ in murine BMMCs and RBL-2H3 cells
730 CRF₂ and CRF₁ gene expression in murine WT and CRF₂^{-/-} BMMCs (A,B) and in CRF₂ over-
expressed RBL-2H3 mast cells (B,D).

732 **Supplemental FIG 4. The CRF₁ antagonist Antalarmin attenuates heightened PSA-**
733 **Induced histamine levels in CRF₂^{-/-} mice.** C57B6 WT male mice (6-8 weeks of age),
734 sensitized overnight with IgE (20 µg in 100 ul PBS), were administered PBS (vehicle) or the
735 CRF₁ antagonist antalarmin (15 mg/kg, i.p.) 30 min prior to injection of DNP-HSA to induce
736 passive systemic anaphylaxis (PSA). Plasma histamine levels in mice were measure at 30
737 min post-PSA. *p<0.05 vs. all other treatment groups (1-Way ANOVA), n=5-6 mice per
738 treatment.

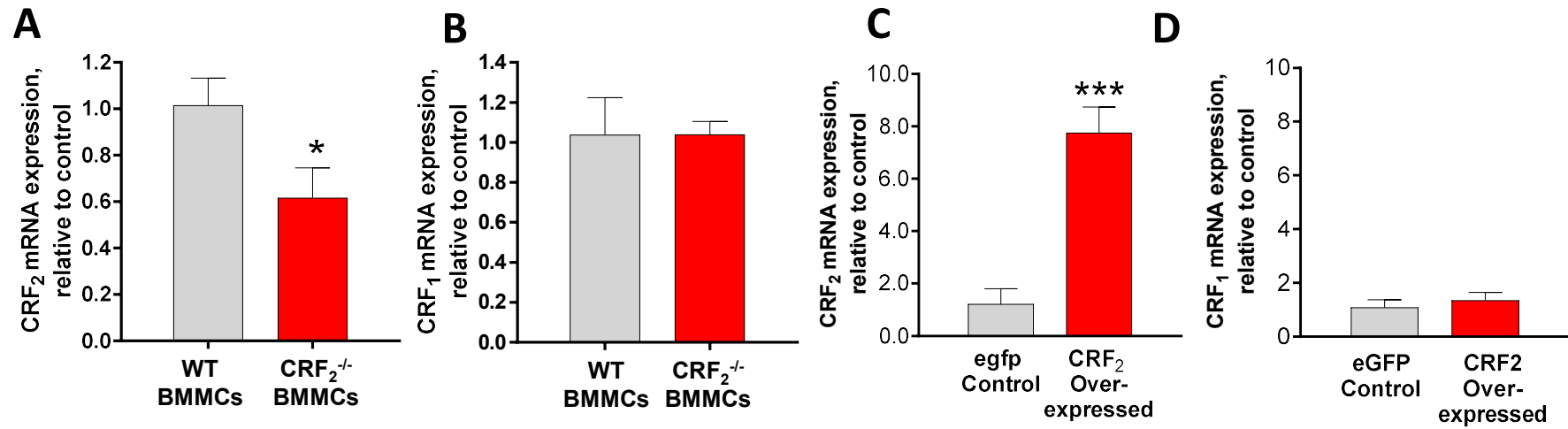
Supplemental FIG 1: PSA-induced serum histamine levels in female and male WT and CRF₂^{-/-} mice



Supplemental FIG 2: Phenotype and morphology of CRF₂^{-/-} BMMCs



Supplemental FIG 3: Expression of CRF₁ and CRF₂ in murine BMMCs and RBL-2H3 cells



Supplemental FIG. 4: The CRF₁ antagonist Antalarmin attenuates heightened PSA-Induced histamine levels in CRF₂^{-/-} mice

