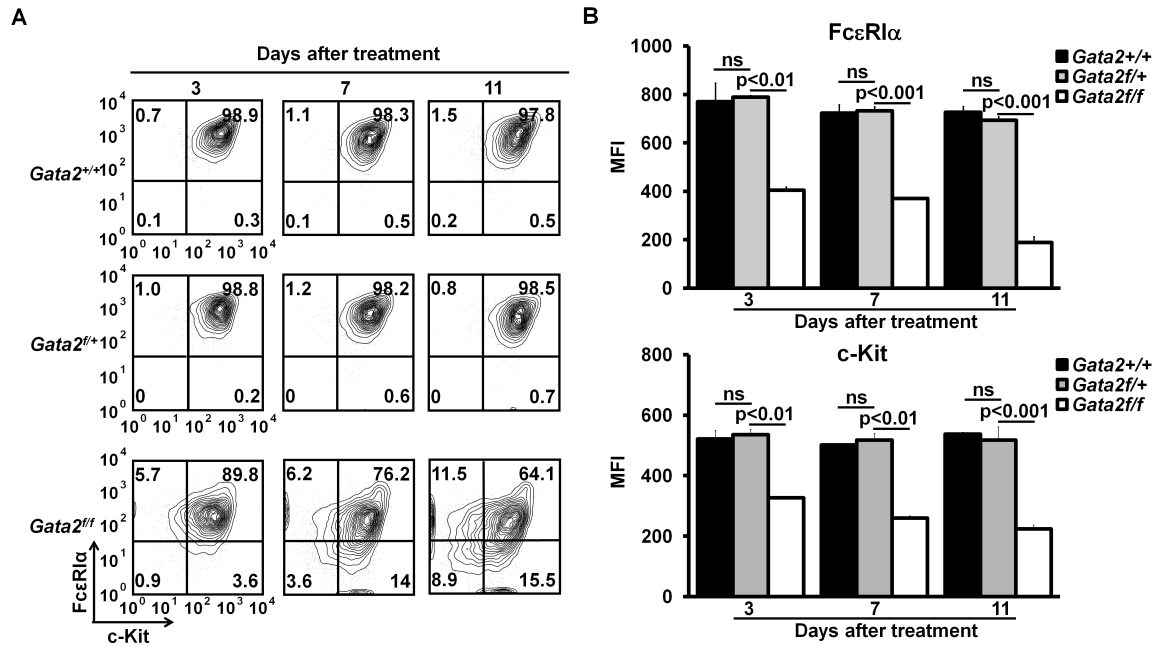


Supplemental Table I qPCR primer sequences:

Gene	5' primer	3' primer
<i>Gata2</i>	GAATGGACAGAACCGGCC	AGGTGGTGGTTGTCGTCTGA
<i>Fcer1a</i>	CCTTTCCTGCTATGGGAACA	GTCTGAAGGAGCAGCCAATC
<i>Kit</i>	CATCCATCCAGCACAATCAG	AACACTCCAGAATCGTCAACT
<i>Il4</i>	CCTCACACTCCACACCAATG	AGCCTGGGTTTCCTTGTAGGT
<i>Il13</i>	ACAGCTCCCTGGTTCTCTCA	CGTGGCGAAACAGTTGCTTTGTG
<i>Hdc</i>	AAATGTGCAGCCTGGATAACC	GAGCAGGATAGTAGGCGTGC
<i>Mcpt8</i>	CTGAAGAGGATGTTCCCTG	GTGGGGTTTGGACTCTGT
<i>Il6</i>	ACCACGGCCTTCCCTACTTC	TGCCATTGCACAACCTTTTTTC
<i>Cd63</i>	CTCTACGTTCTCCTGCTGGC	AATGATGACCACAGGCAACA
<i>Itgam</i>	AAGGATTCAGCAAGCCAGAA	TAGCAGGAAAGATGGGATGG
<i>Ccl3</i>	CCTCTGTCACCTGCTCAACA	GATGAATTGGCGTGGAATCT
<i>Alox5</i>	CACGGGGACTACATCGAGTT	GTGCTGCTTGAGGATGTGAA
<i>Itga2</i>	CCGGGTGCTACAAAAGTCAT	GTCGGCCACATTGAAAAAGT
<i>Il3ra</i>	TACCCTCGGAAGCTCAGCAG	AGAGCAGCGACTTCCTCCAC
<i>Ly6g</i>	TTGCAAAGTCTGTGTGCTC	AGGGGCAGGTAGTTGTGTTG
<i>Tslp</i>	CTGACTGGAGATTTGAAAGGG	GTGCCATTTCCCTGAGTACCG
<i>Mcpt5</i>	TGAGAACTACCTGTCGGCCT	AAGCTTCTGCCACGTGTCTT
<i>Mcpt6</i>	GGCAGGTGAGCCTGAGATTT	TAGATACTGCTCACGAAGCTG
<i>Tph1</i>	CATCAGCCGAGAACAGTTGA	TTCGGATCCATAACACAGCA
<i>Il4ra</i>	CCTCACACTCCACACCAATG	AGCCTGGGTTTCCTTGTAGGT
<i>Mcpt2</i>	GCACTTCTTTTGCCTTCTGG	TGAGCTCCAAGGATGACACT
<i>Mcpt1</i>	GGAGCTCATGATGTGAGCAA	GACCAGGCAAGGGAATTACA
<i>Cd96</i>	CAGTCTACAACCTCATTGTGG	GAAGAGAACTTCTTCCACTCC
<i>Cd103</i>	ATCAAGACCCCAGCAACAAC	CTGCCCTTTGGCATAACAGAT
<i>Tpsg1</i>	CTGACTCTGCTGTGGGAAGA	ACACACGTGCACCTTGTGCA
<i>Hprt</i>	CTCATGGACTGATTATGGACAGGAC	GCAGGTGAGCAAACTTATAGCC
<i>Stat5b1&amp;2</i>	TGCAGGGACTGACCTACTCC	GAAGCCTCGTGGCAGTCTAC
<i>Stat5b3</i>	ACACAGACAGGCACAAATGG	CCCCAACGAAAGCAGATTTA
<i>Stat5b4&amp;5</i>	CTGCTGGGGTTTAAAGCTGTC	ACACTGGAGGGACCTGAATG
<i>Cebpa</i>	TGGACAAGAACAGCAACGAG	TCACTGGTCAACTCCAGCAC
<i>Mitf</i>	AACCGACAGAAGAAGCTGGA	TGATGATCCGATTCACCAGA
<i>Ela2</i>	GGCTTTGACCCATCACAAC	CGGCACATGTTAGTCACCAC
<i>Prtn3</i>	CAGCTTGTGACAGTGGTGCT	GGACAGAGTCTGGTCCTGC
<i>Lactiferrin</i>	GAGAAGATGCTGGCTTCACC	CACCAATACACAGGGCACAG
<i>Mmp12</i>	TGATGCAGCTGTCTTTGACC	TGGGAAGTGTGTGGAATCA
<i>Mpg-1</i>	AAGGTGCCTCTTGAGCGTTA	TTCTGATGTGCCTTGCTTTG
<i>Msr1</i>	CTGGACAAACTGGTCCACCT	TCCCCTTCTCTCCCTTTTGT

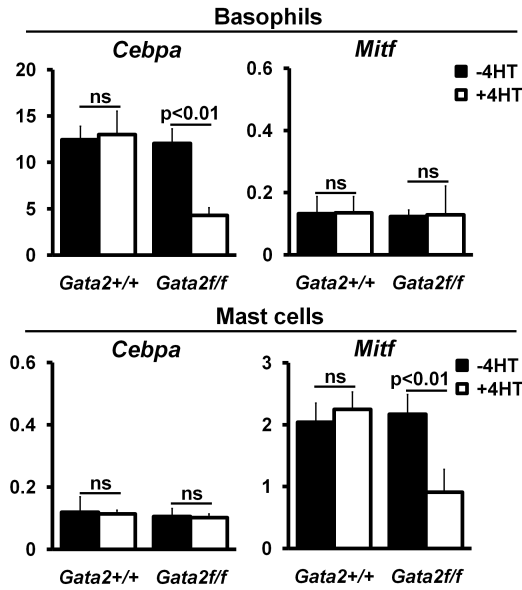
Supplemental FIGURE 1



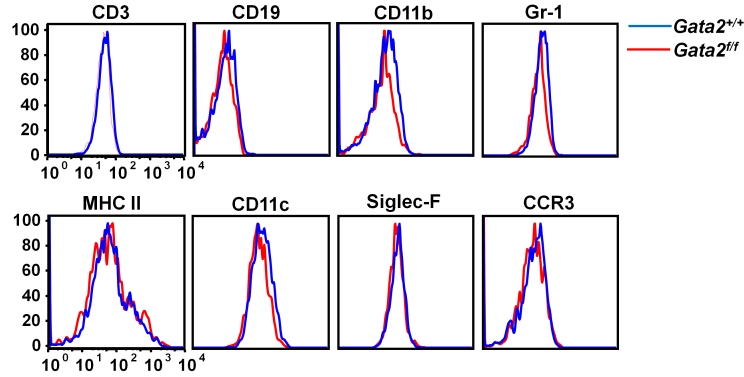
**Supplemental FIGURE 1.** *Gata2* haploinsufficiency is not observed in maintaining FcεRIα expression on basophils and FcεRIα and c-Kit expression on mast cells. **(A)** FACS analysis of 4-week BMDCs treated with 4HT (gated on YFP<sup>+</sup> cells). **(B)** MFIs of FcεRIα and c-Kit expression on YFP<sup>+</sup> *Gata2*<sup>+/+</sup> mast cells, *Gata2*<sup>+/-</sup> mast cells or “*Gata2*<sup>-/-</sup> mast cells” (mean ± SD, n=2).

Supplemental FIGURE 2

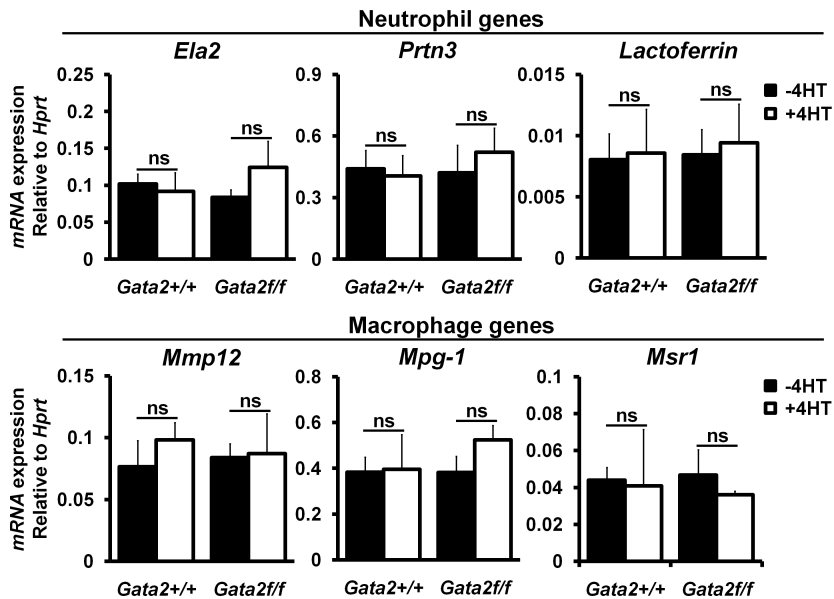
A



B



C



**Supplemental FIGURE 2.** Analysis of re-expression of lineage-specific genes or cell surface markers. **(A)** qPCR analysis of *Cebpa* and *Mitf* mRNA expression in the FACS-sorted YFP<sup>+</sup> *Gata2*<sup>+/+</sup> or *Gata2*<sup>-/-</sup> basophils at day 5 after the initial 4HT treatment or in the FACS-sorted YFP<sup>+</sup>*Gata2*<sup>+/+</sup> mast cells or “*Gata2*<sup>-/-</sup> mast cells” at day 11 after the initial 4HT treatment (mean ± SD, triplicates). **(B)** Expression of T cell, B cell, neutrophil and macrophage, dendritic cell, or eosinophil surface markers on YFP<sup>+</sup>*Gata2*<sup>+/+</sup> mast cells or “*Gata2*<sup>-/-</sup> mast cells” at day 11 after the initial 4HT treatment. **(C)** qPCR analysis of mRNA expression of neutrophil- and macrophage-specific genes in the FACS-sorted YFP<sup>+</sup> *Gata2*<sup>+/+</sup> mast cells or “*Gata2*<sup>-/-</sup> mast cells” at day 11 after the initial 4HT treatment (mean ± SD, triplicates). Data represent two independent experiments with similar results.