SUPPLEMENTARY MATERIALS:



Supplementary Figure 1. Gating strategy to identify tumor-infiltrating immune cells. Single cell suspensions of digested tumor material were stained for multi-color flow cytometry and data acquired on a MACSQuant 10 cytometer. A doublet discrimination gate (FSC-A vs FSC-W) was utilized to limit data acquisition on single cells. Viable cells were then identified based on exclusion of Zombie aqua dye that stained apoptotic and dead cells. Thereafter, hematopoietic cells were gated based on CD45 staining and from which CD8 T-cells (or DCs in Fig 4A) were further identified.



**Supplementary Figure 2. Differential tumor expression of interferon-stimulated genes (ISG) induced by radiation.** Real-time qRT-PCR was used to evaluate baseline and RT-induced expression of (**A)** *Mx1*, **(B)** *Cxcl10* and **(C)** *Ccl4* in TSA, MCA38 and LLC1 cell lines. Results are shown as fold change differences compared to respective non-irradiated cells, with each dot representing the mean of triplicate reactions run for each sample. Bars represent mean ± SD. \*\*p<0.005, \*\*\*p<0.0005, t-test.



**Supplementary Figure 3. IL-15 monotherapy does not affect the survival of TSA tumor-bearing WT and Batf-/- mice.** Mice were inoculated with TSA tumor cells and treated with sc IL-15 or PBS vehicle control for 10 days, as described in Fig 1A. No significant differences in survival between WT and Batf3-/- mice were seen. IL-15 failed to extend survival regardless of the genetic background (n= 5-7 mice/group).

**Supplementary Figure 4. Effect of IFNAR blockade on intratumoral CD8+ T cells in mice treated with radiotherapy + IL-15**. Mice were inoculated with TSA tumor cells and treated with sc IL-15 or PBS vehicle control for 10 days. Some animals were additionally treated with anti-IFNAR antibody (or isotype control) given i.p. every other day starting at day 12 (Figure 7A). Tumors were harvested on day 18 post tumor implantation and flow cytometry used to identify infiltrating CD8+ T cells as a percentage of live CD45+ cells. Each dot represents one animal. Bars represent mean ± SD \*p<0.05, \*\*p<0.005, \*\*\*p<0.0005, 2-way ANOVA.