

Supplementary Figure 1. Cblb deficiency leads to immunopathology during chronic viral infection. Naïve Cblb<sup>+/+</sup> and Cblb<sup>-/-</sup> mice were infected with LCMV Clone 13. Mice were monitored for their survival (A). Serum concentration (pg/ml) of cytokines measured by BD Biosciences Cytokine Bead Array (B). N=8 mice/group. \*p≤0.05.

**Supplementary Figure 2** 



**Supplementary Figure 2.** Antifungal CD8<sup>+</sup> T cell responses. Naïve Cblb<sup>+/+</sup> and Cblb<sup>-/-</sup> were vaccinated with either live or heat killed strain #55 yeast. On day 25, dLNs and Spleens were harvested to analyze percent IL-4 producing cells among CD8<sup>+</sup> T cells by flow cytometry (**A**). On day 18, spleens were harvested to analyze cytokine-producing CD8<sup>+</sup> T cells by flow cytometry (**B**) and percent CD43<sup>+</sup> cytokine-producing CD8+ T cells (**C**). Values are mean  $\pm$  SD. N=4-5 mice/group. \*p $\leq$ 0.05.

## **Supplementary Figure 3**



Supplementary Figure 3. Attributes of antifungal CD8+ T cell responses. Naïve  $Cblb^{+/+}$  and  $Cblb^{-/-}$  mice were vaccinated and cells were analyzed as described in Figure 5. Percent cytokine producing  $CD8^+$  T cells in spleens following vaccination with inactivated yeast (A), live-yeast (B) or both (C). Values are mean  $\pm$  SD. N=4 mice/group. \*p $\leq$  0.05.

## **Supplementary Figure 4**



Supplementary Figure 4. CD127 and KLRG-1 expression on and role of HIF-1 $\alpha$  in antifungal CD8<sup>+</sup> T cells. Naïve Cblb<sup>+/+</sup> and Cblb<sup>-/-</sup> mice were vaccinated with attenuated #55 strain. (A) On day 25, CD8<sup>+</sup> T cells were analyzed by flow cytometry. Data shows percent KLRG-1 and CD127 expression on cytokine-producing CD8<sup>+</sup> T cells in dLNs and spleens. N=4-5 mice/group. Data is representative of three independent experiments. (B) Following vaccination, cohorts of mice were received either vehicle or Echinomycin (3 µg/mouse) every other day starting from day 4 post-vaccination. On day 14-16, spleens were harvested to analyze cytokine-producing CD8<sup>+</sup> T cells by flow cytometry. Scatter diagrams show frequency of cytokine-producing cells among CD8<sup>+</sup> T cells. Each individual marker represents the value from a single mouse. Data is pooled from two independent experiments. Values are mean ± SD. \*p≤0.05.