



**Figure S2. Assessment of genetic deletion of mitochondrial fusion proteins in IL-2 T<sub>E</sub> and IL-15 T<sub>M</sub> cells and of donor T<sub>E</sub> cells generated from infection. (Related to Figure 2).**

(A-C) IL-2 T<sub>E</sub> and IL-15 T<sub>M</sub> cells were cultured from (A) OT-I Mfn1 floxed, (B) OT-I Mfn2 floxed, (C) OT-I Opa1 floxed mice crossed to CD4 Cre transgenic mice to generate T cells conditionally deleted for proteins that mediate mitochondrial fusion (+/+ are CD4 Cre<sup>-</sup> and -/- are CD4 Cre<sup>+</sup>). Efficiency of deletion by cre recombinase analyzed by (A) qPCR and (B-C) immunoblot. (D) Flow cytometry analysis of short-lived effector cells (SLEC, KLRG1<sup>hi</sup> CD127<sup>lo</sup>) and memory precursor effector cells (MPEC, KLRG1<sup>lo</sup> CD127<sup>hi</sup>) generated at day 7 post infection from OT-I Opa1<sup>+/+</sup> and OT-I Opa1<sup>-/-</sup> cells transferred into congenic recipients infected with LmOVA. Representative flow dot plots (left) and scatter dot plots (right) with mean ± SEM bars. Each dot represents individual mice (n=8-9 per genotype), \*\*\*p<0.0001. (E) OCR analysis of day 10 post-infection OT-I Opa1<sup>+/+</sup> and Opa1<sup>-/-</sup> donor cells at baseline and after oligomycin (Oligo), FCCP, and rotenone plus antimycin A (R+A) injections. Data is representative of 2 experiments shown as mean ± SEM.