Supplementary Material

Induction of type I interferons by therapeutic nanoparticle-based vaccination is indispensable to reinforce cytotoxic CD8$^+$ T cell responses during chronic retroviral infection

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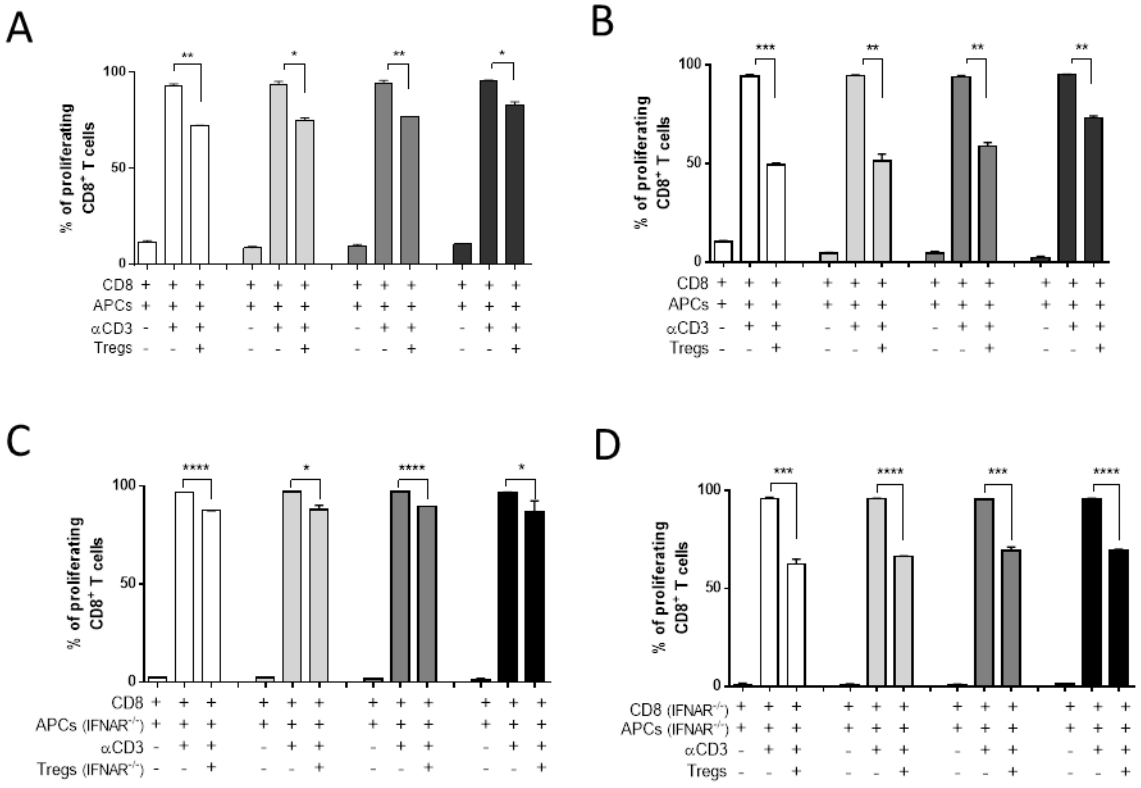
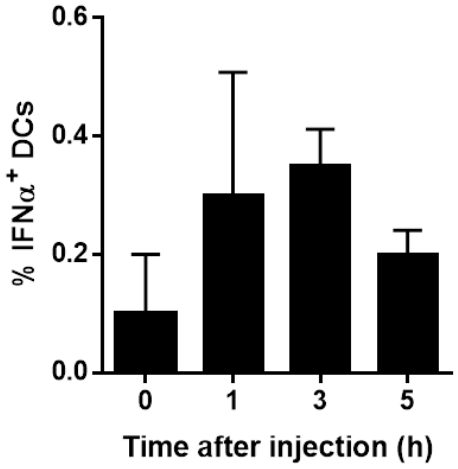


Supplementary Figure 1. Determination of the influence of IFN I on the suppressive capability of Tregs. Sorted $CD4^+$ $Foxp3^+$ ($eGFP^+$) Treg cells from the spleen of naïve (A) or chronically FV infected (B) mice or $CD4^+$ $CD25^{hi}$ Treg cells from naïve $IFNAR^{-/-}$ mice (C) were co-cultured with $CD8^+$ responder T cells and irradiated antigen presenting cells (APCs) in the presence or absence of αCD3 and different amounts of universal IFNα. D) $CD4^+$ $Foxp3^+$ ($eGFP^+$) Treg cells from naïve mice were co-cultured with $CD8^+$ responder T cells and irradiated APCs both isolated from $IFNAR^{-/-}$ mice in the presence or absence of αCD3 and different amounts of universal IFNα. Proliferation of $CD8^+$ T cells was measured by the loss of eFluor dye. The results of 2 independent experiments are shown. Bars represent mean ± SEM. Statistical analysis was performed by ANOVA with Bonferroni's multiple comparisons test (*$p<0.05$; ***$p<0.001$; ****$p<0.0001$).



Supplementary Figure 2: IFNα is secreted by DCs *in vivo* after CaP nanoparticle vaccination. C57BL/6 mice were vaccinated subcutaneously with CpG and FV peptide functionalized CaP NPs. Afterwards, mice were sacrificed and $CD11c^+$ $F4/80^-$ cells from the popliteal lymph node were stained for IFNα after incubation in the presence of brefeldin A. The results of 2 independent experiments are depicted. n = 4. Data represent mean ± SEM.