



**Supplementary Figure S4: No miRNA off-target effects were detected in *in vitro* assays testing antigen-stimulated cytokine production and proliferative capacity.** (a) The fold expansion of polyclonal T cells transduced either with the P14 vector or with the miR-P14 vector was determined over three weeks of *in vitro* culture. Nontransduced T cells served as a control. Plot shows means of replicates (2-3) ± SD. (b) The percentage of CD8<sup>+</sup>/P14 TCRαβ<sup>+</sup> T cells was determined by flow cytometry. (c) INF-γ secretion of P14 TCR-transduced polyclonal T cells stimulated with titrated amounts of peptide. Plot shows means of duplicates ± SD. Representative results of one out of two independent experiments are shown. Transduction efficiencies: P14 (51%), miR-P14 (53%), P14opt (62%), miR-P14opt (58%).