

Supplemental Figure 1. FICZ partially restores BATF and IL-9 production.

(A) Effect of FICZ on IL-9 expression. Naive CD4 T cells were stimulated under the Th9-polarizing conditions in the presence (+) or absence (-) of Calcitriol (1nM). FICZ was added the culture at the concentrations indicated. Secreted IL-9 concentrations were determined by ELISA. Data represent one of 3 independent experiments. \*p<0.001 (B) Expression of BATF by T cells treated with Calcitriol with or without FICZ. Total cell lysate (BATF) or nuclear extracts (AhR) from cells cultured as in (A) were subjected to western blot analysis. Relative intensity of each band (shown below each lane) was determined by Image J after normalization using  $\beta$ -actin (for BATF) or HDAC (for AhR). Representative data from 3 experiments. (C and D) Effect of BATF overexpression on IL-9. T cells were transfected with BATF expression vector (BATF) or the control vector (C), cultured with or without AhR antagonist under the Th9 inducing conditions. (C) Western blot analysis of the cell lysates. (D) Relative levels of il-9 mRNA determined by real time PCR using cells treated as in (C). Data represent one of 3 independent experiments.