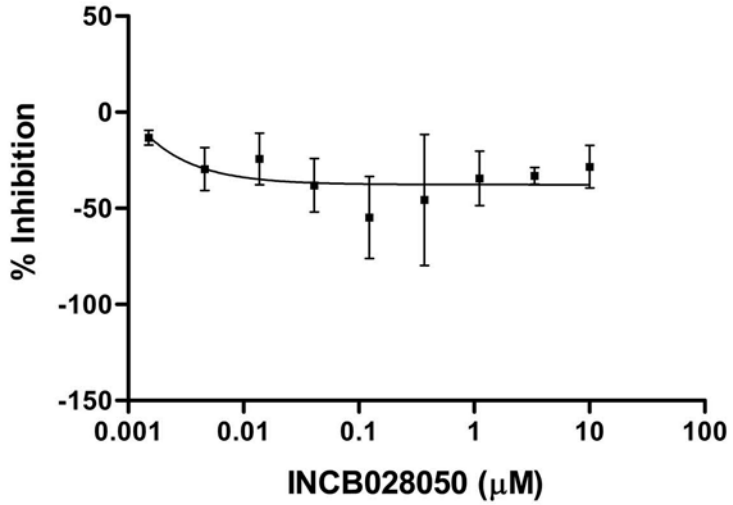
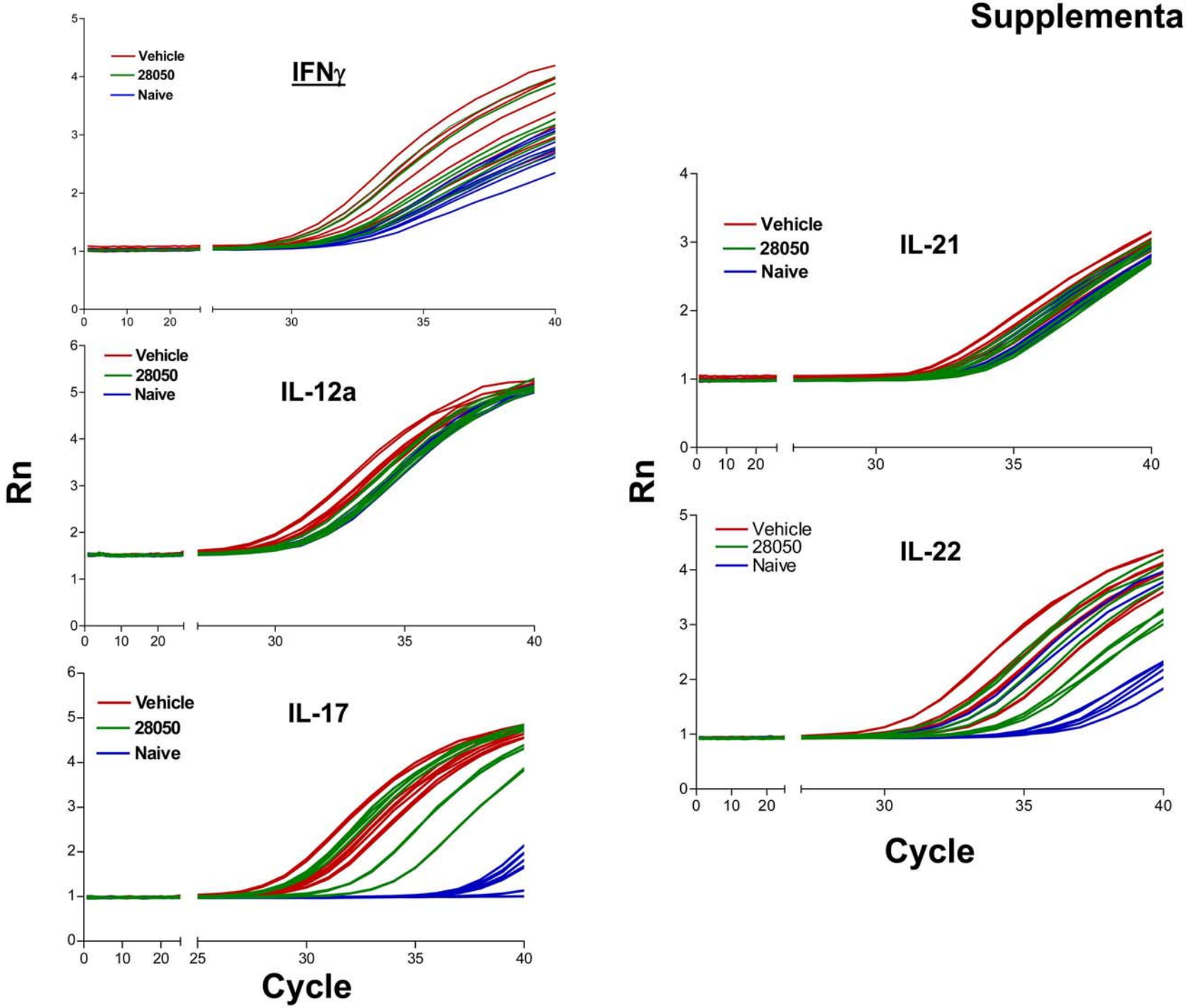
Supplemental Figure 1. Lack of effect of INCB028050 on JAK3-driven cellular proliferation. Ba/F3-TEL-JAK3 cells were treated with DMSO (control) or INCB028050 at concentrations up to 10 μM. No effect on proliferation was observed during the 3 day treatment using the Cell-Titer Glo® (Promega) assay kit.

Supplemental Figure 2. INCB028050 reduces elevated cytokine mRNA levels in the rAIA model. Draining lymph nodes were collected on treatment day 14 from vehicle or INCB028050 (10 mg/kg, BID) treated rAIA rats with clinical scores similar to those described in Table III. These were compared to samples from naïve, syngenic, age matched rats and showed elevated Th1 and Th17 associated cytokine mRNA on treatment day 14 and that INCB028050 reduced these toward normal. Individual sample amplification curves are shown in duplicate and quantified in Table IV (n=4/group).

Supplemental Fig. 1



Supplemental Fig. 2



Supplemental Table I. Structural analogues of INCB028050 that lack potency against JAK1 and JAK2 do not affect IL-6 or IL-23 signaling or function in PBMCs or T-cells, respectively ($n \geq 2$).

Compound	Assay	IC50 (μM)
INCB027753	JAK1 enzyme (1mM ATP)	> 0.2
	JAK2 enzyme (1mM ATP)	> 0.2
	IL-6 stimulated pSTAT3	> 10
	IL-6 stimulated MCP-1	> 10
	IL-23 stimulated pSTAT3	> 10
	IL-23 stimulated IL-17	> 10
	IL-23 stimulated IL-22	> 10
INCB029843	JAK1 enzyme (1mM ATP)	> 0.2
	JAK2 enzyme (1mM ATP)	> 0.2
	IL-6 stimulated pSTAT3	> 10
	IL-6 stimulated MCP-1	> 10
	IL-23 stimulated pSTAT3	> 10
	IL-23 stimulated IL-17	> 10
	IL-23 stimulated IL-22	> 10