FIG E1. IL-1R, Myd88 and NF-κB expression are required for IL-13 IL-1β-dependent enhancement.

A, "anti-IL-1, IL-1R1-" and "IL-1β, IL-1R1+" Th2 cells were reprimed under neutral, Th1 or Th2 conditions and then re-assessed for IL-4 and IL-13 expression. **B**, Sorted 5C.C7 Th2 cells "anti-IL-1, IL-1R-" or "IL-1β, IL-1R+" were transferred into normal B10.A CD45.2 mice, and rechallenged intranasally with PCC + anakinra or IL-1β respectively. Statistical analysis of IL-4 and IL-13 expression on the transferred T cells found in the lungs. **C,** OT-II, OT-II IL-1R$^{-/-}$, or OTII Myd88-/- CD4+T cells were cultured with wild type-T-depleted splenocytes under Th2 + anti-IL-1 or Th2 + IL-1β conditions, and then tested for IL-13 and IL-4. **D,** 5C.C7 Th2 cells were differentiated ± anti-IL-1α/β for 24h. NF-κB activation inhibitor + anti-IL-1α/β or IL-1β were added and cultured for an additional 3 days.

FIG E2. Gene expression analysis of "IL-1β, IL-1R+" versus "anti-IL-1, IL-1R-" groups

A, IL-13 and IL-4 regulatory regions and map of locus with DNAse I HS sites. 5C.C7 Th2 cells primed with anti-IL-1 or IL-1β were sorted as in Fig. 1C. ChIP analysis on IL-13 and IL-4 promoter region was performed immediately. **B,** RT-PCR analyzes were performed with total RNA isolated from Th2 "anti-IL-1, IL-1R-" and Th2 "IL-1β, IL-1R+" cell cultures. Representative data presented is the ratio between both groups. **C,** cAMP functional response to biologically active PTH was measured on 24h supernatant collected from Th1, Th2 "anti-IL-1, IL-1R-" and Th2 "IL-1β, IL-1R+" cell cultures primed after 4 days and restimulated with platebound anti-CD3/CD28.

D, PTH ELISA was measured according to manufacturers' recommendations.

Figure E1

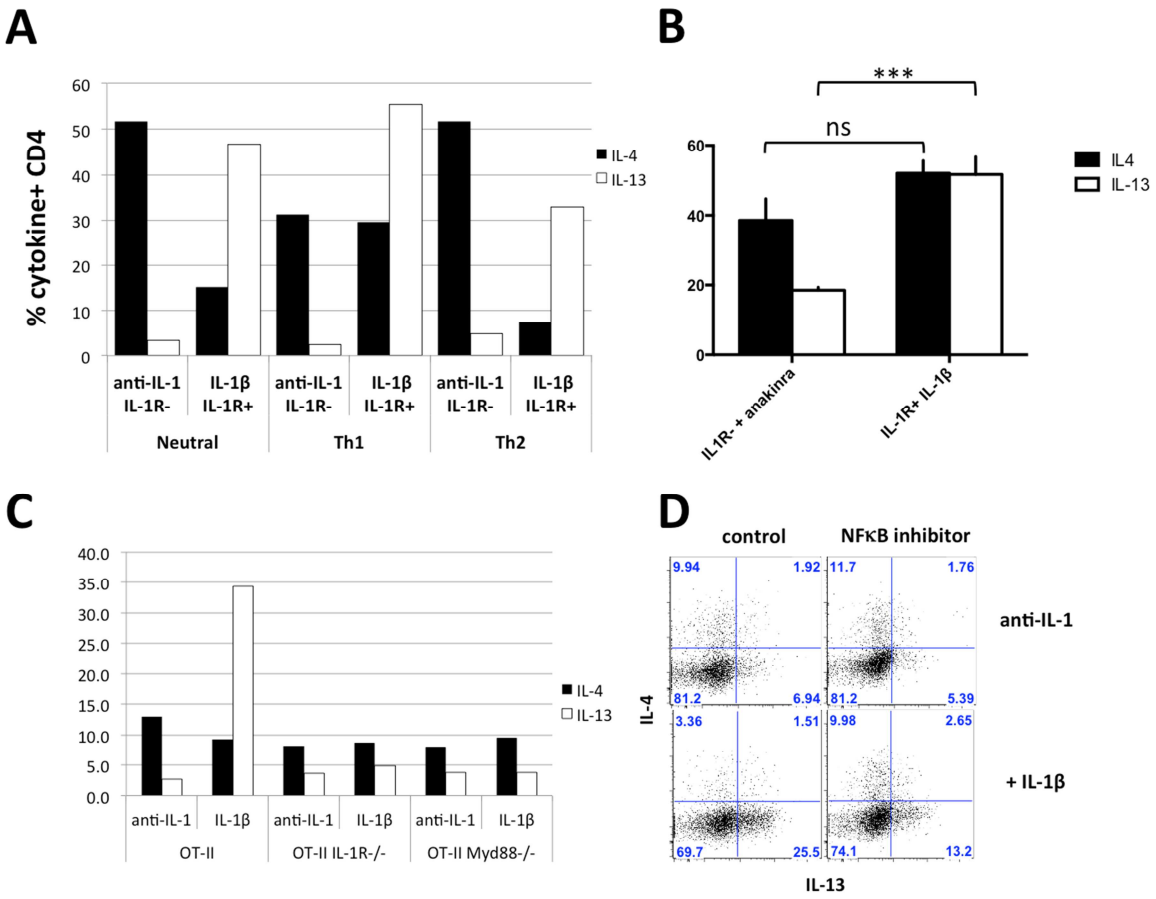
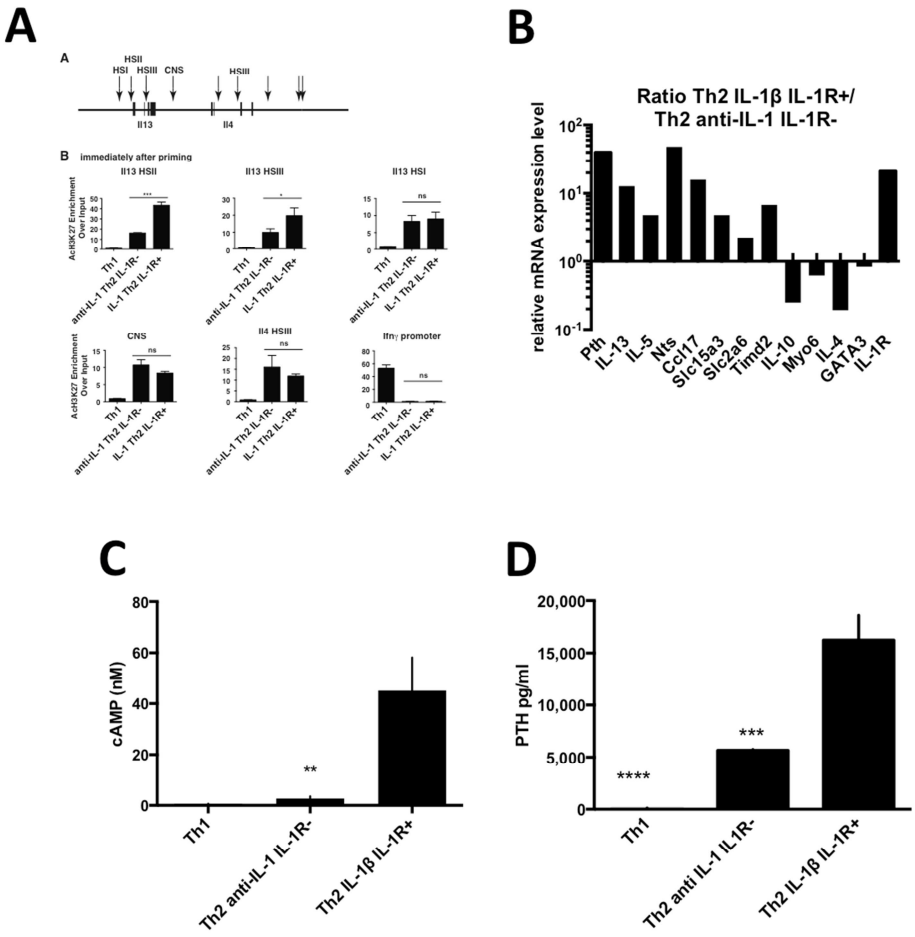

A
% cytokine+ CD4
60
50
40
30
20
10
0
IL-4
IL-13
anti-IL-1
IL-1R-
IL-1β
IL-1R+
Neutral
Th1
Th2
B
***
ns
IL4
IL-13
IL-1R- + anakinra
IL-1R+ IL-1β
C
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
OT-II
OT-II IL-1R-/-
OT-II Myd88-/-
D
control
NFκB inhibitor
anti-IL-1
+ IL-1β
IL-4
IL-13
9.94
1.92
81.2
6.94
11.7
1.76
81.2
5.39
3.36
1.51
69.7
25.5
9.98
2.65
74.1
13.2

Figure E2


A
HSII
HSI HSIII CNS
HSIII
Il13
Il4
B immediately after priming
Il13 HSII
Il13 HSIII
Il13 HSI
AcH3K27 Enrichment Over Input
Th1
anti-IL-1 Th2 IL-1R-
IL-1 Th2 IL-1R+
CNS
Il4 HSIII
Ifnγ promoter
ns
B
Ratio Th2 IL-1β IL-1R+/ Th2 anti-IL-1 IL-1R-
relative mRNA expression level
Pth
IL-13
IL-5
Nts
Ccl17
Slc15a3
Slc2a6
Timd2
IL-10
Myo6
IL-4
GATA3
IL-1R
C
cAMP (nM)
Th1
Th2 anti-IL-1 IL-1R-
Th2 IL-1β IL-1R+
D
PTH pg/ml
Th1
Th2 anti IL-1 IL1R-
Th2 IL-1β IL-1R+