Expanded View Figures

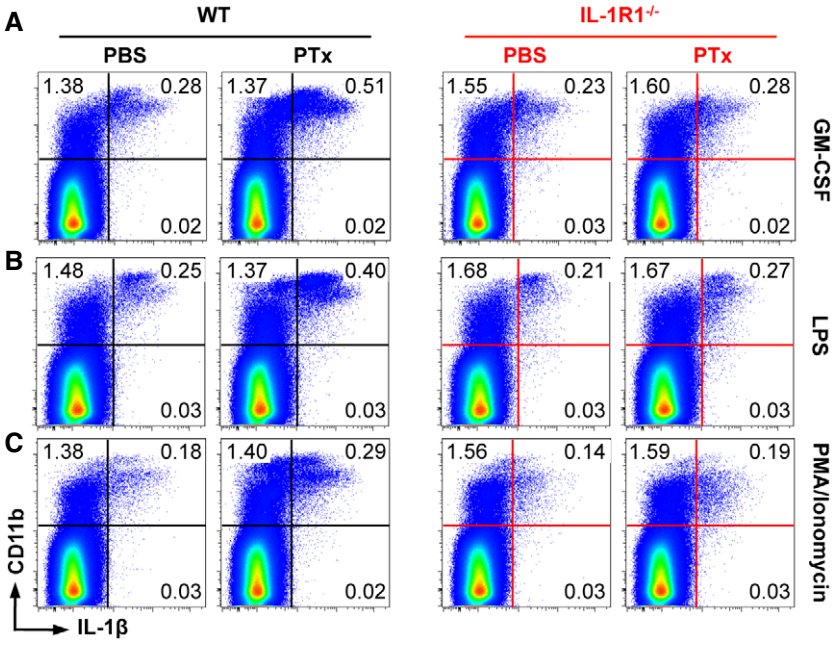

Figure EV1. Myeloid cells are the main source of IL-1β upon MOG/CFA/PTx immunization.

A–C Analysis of IL-1β expression by cells isolated from the dLN and stimulated with GM-CSF (A), LPS (B), and PMA/ionomycin (C). Data are representative FACS plots gated on VD$^-$ cells with mean frequencies per group.

Data information: Cells (A–C) were isolated at day 7 after immunization and stimulated in the presence of monensin with indicated stimuli for 4 h. Data consist of $n = 4$ WT PBS-, $n = 3$ IL-1R1$^{-/-}$ PBS-, $n = 4$ WT PTx-, $n = 3$ IL-1R1$^{-/-}$ PTx MOG/CFA-immunized mice. Experiments were performed twice with similar results.

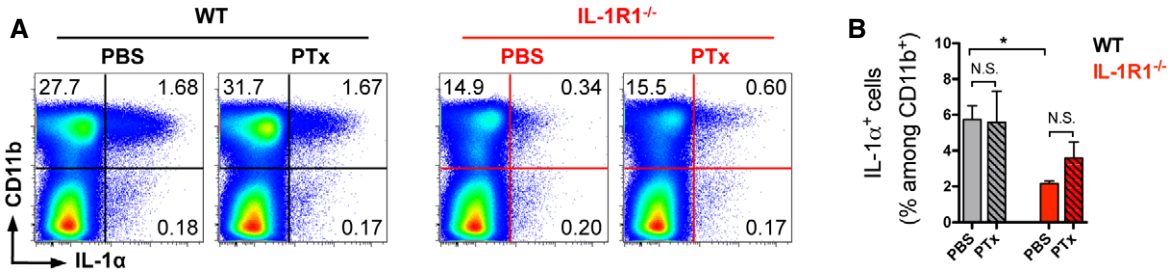

Figure EV2. Myeloid cells are the main source of IL-1α upon MOG/CFA/PTx immunization.

A Analysis of IL-1α expression by cells isolated from the spleen and stimulated with GM-CSF. Data are representative FACS plots, gated on VD$^-$ cells with mean frequencies per group.

B Frequencies (mean + SEM) of IL-1α expression by CD11b$^+$ cells shown in (A).

Data information: Cells (A, B) were isolated at day 7 after immunization and were stimulated with 20 ng/ml GM-CSF for 4 h in the presence of monensin. Data consist of $n = 4$ WT PBS-, $n = 3$ IL-1R1$^{-/-}$ PBS-, $n = 4$ WT PTx-, and $n = 3$ IL-1R1$^{-/-}$ PTx MOG/CFA-immunized mice. *$P < 0.05$, N.S., not significant; two-tailed unpaired t-test. Experiments were performed twice with similar results.

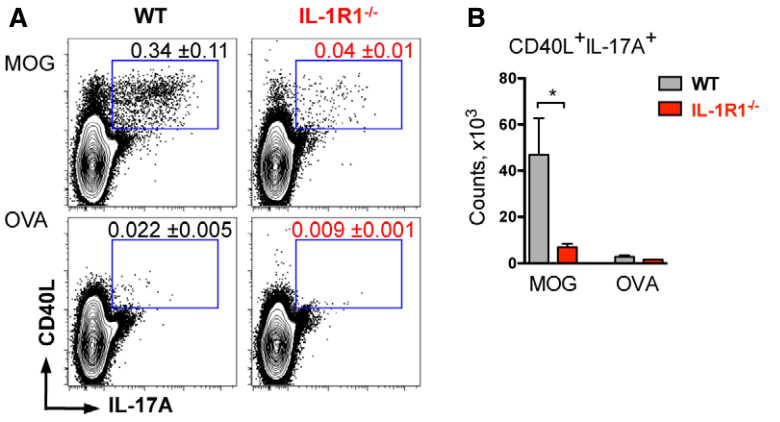

Figure EV3. IL-1R1 deletion impairs MOG-specific Th17 cell expansion.

A Analysis of IL-17A expression by CD4 T cells isolated from the spleen and restimulated with MOG or OVA for 6 h.

B Total cell numbers of antigen-specific Th17 cells isolated from the spleen shown in (A).

Data information: Cells (A, B) were isolated at day 9 after MOG/CFA/PTx immunization of $n = 4$ mice of each genotype. Data are (A) representative FACS plots, gated on VD$^-$TCRβ$^+$CD4$^+$CD44$^+$ cells with mean frequencies among CD4 T cells per group ± SEM and (B) bar diagram (mean + SEM). *$P < 0.05$, N.S., not significant; two-tailed unpaired *t*-test.

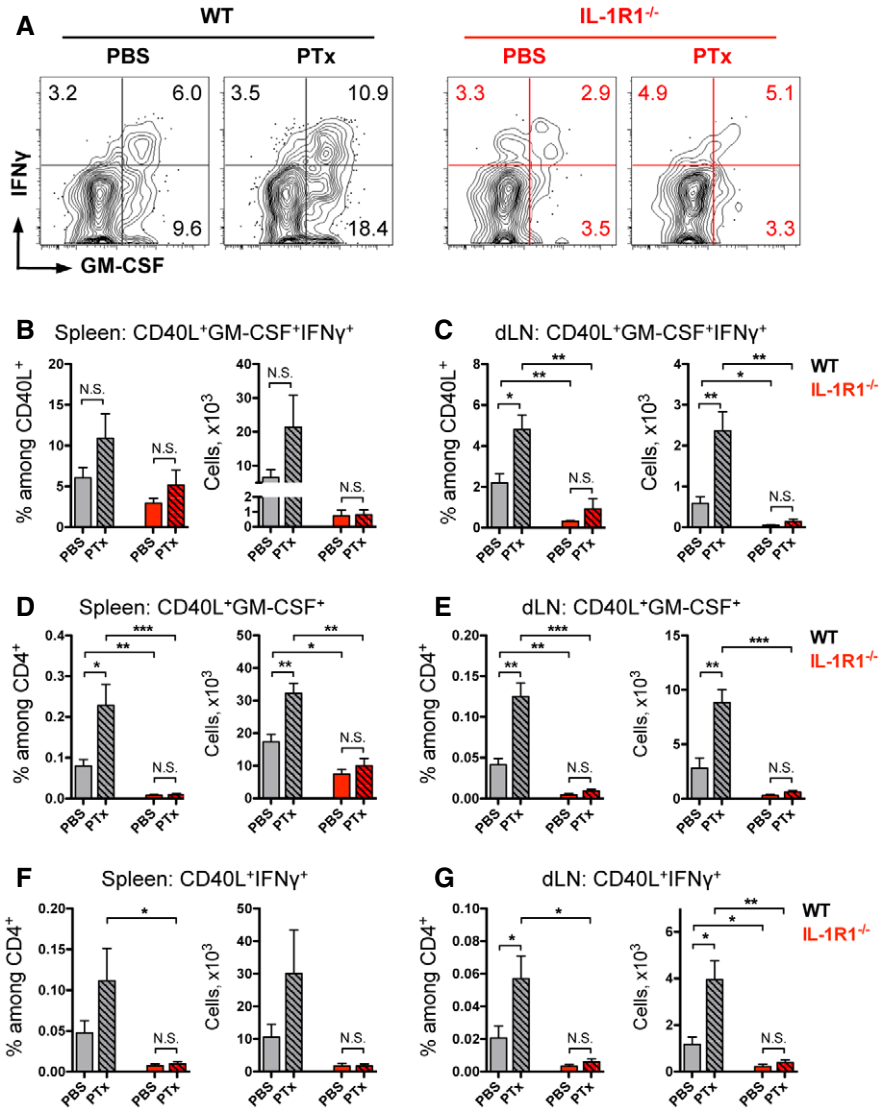

Figure EV4. IL-17A-related cytokine expression by CD4 T cells is dependent on IL-1R1 signaling.

A–G Analysis of cytokine expression by CD4 T cells isolated from the (A, B, D, F) spleen and (C, E, G) dLN (depicted in Fig 3). Frequencies and total numbers of MOG-specific (B, C) GM-CSF$^+$IFNγ$^+$ cells, (D, E) GM-CSF$^+$ cells, and (F, G) IFNγ$^+$ cells. Data (A) are representative FACS plots, gated on VD$^-$TCRβ$^+$CD4$^+$CD44$^+$CD40L$^+$ cells with mean frequencies among CD44$^+$CD40L$^+$ cells per group, and (B–G) bar diagram (mean + SEM).

Data information: Cells (A–G) were isolated at day 9 after immunization and restimulated in the presence of MOG for 6 h. Data consist of $n = 5$ WT PBS-, $n = 4$ WT PTx-, $n = 4$ IL-1R1$^{-/-}$ PBS-, $n = 4$ IL-1R1$^{-/-}$ PTx MOG/CFA-immunized mice. *$P < 0.05$, **$P < 0.01$, ***$P < 0.001$, N.S., not significant; two-tailed unpaired *t*-test. Experiments were performed at least twice with similar results.

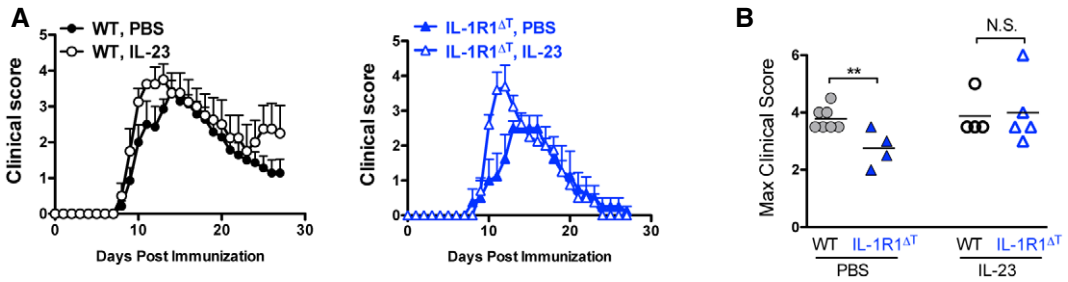

Figure EV5. IL-23 promotes EAE severity in IL-1R1-deficient mice.

A EAE clinical scores (mean + SEM) of mice treated with IL-23 or PBS.

B Maximal EAE clinical scores (individual plots with mean) of mice shown in (A).

Data information: Mice were actively immunized with MOG/CFA/PTx and treated i.p. with either PBS or IL-23 (1 μg/mouse) at day 3, 5, 7, 9, 11, and 13. Data consist of $n = 7$ WT PBS-, $n = 4$ IL-1R1$^{\Delta T}$ PBS-, $n = 4$ WT IL-23-, and $n = 5$ IL-1R1$^{\Delta T}$ IL-23-treated mice. $^{**}P < 0.01$, N.S., not significant; two-tailed unpaired *t*-test. Experiments were performed twice with similar results.