**Supporting Information**

# A novel anti-human IL-1R7 antibody reduces IL-18 mediated inflammatory signaling

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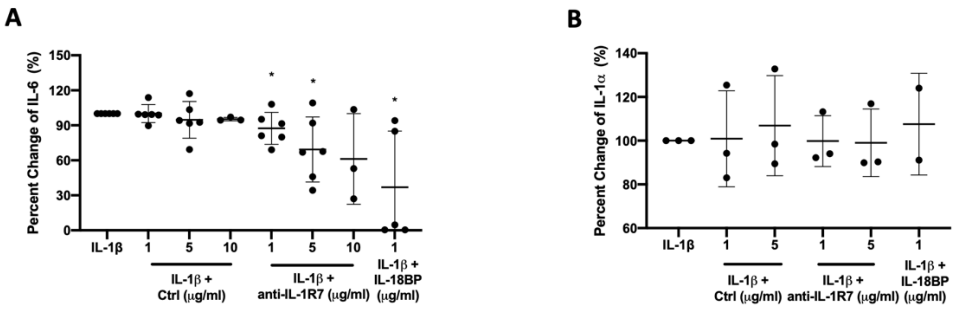
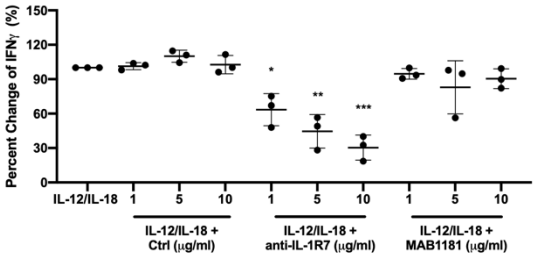
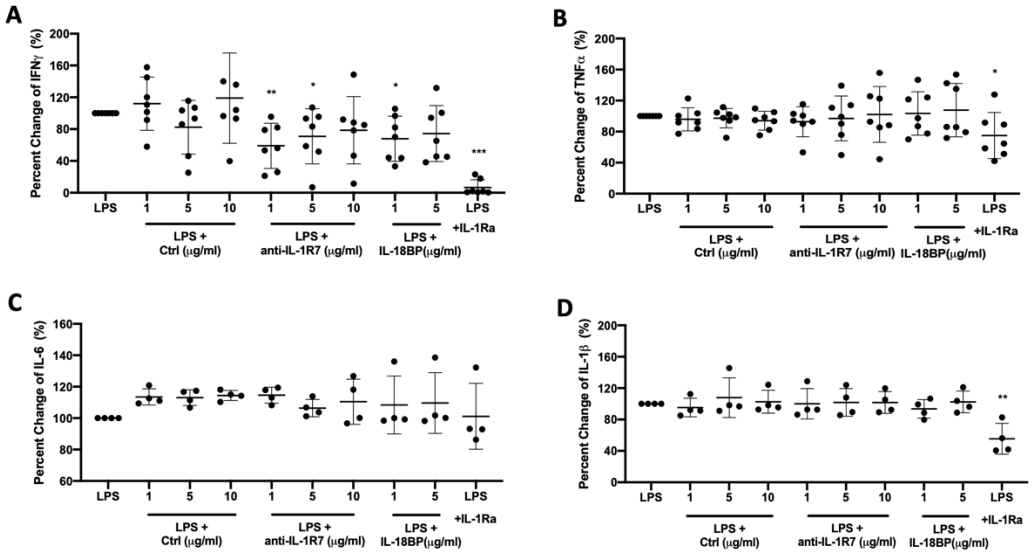
**Running title:** Anti-IL-1R7 suppresses IL-18 pathway



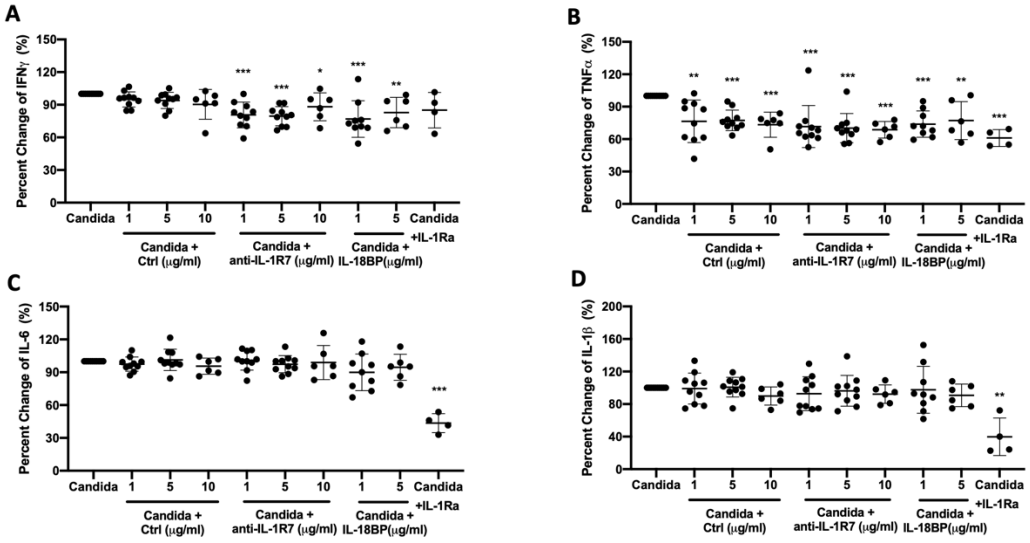

**Supplemental Figure 1. Effect of anti-IL-1R7 on IL-1β-induced IL-6 and intracellular IL-1α in human lung epithelial A549-hIL-1R7 cell cultures.** Cells are pretreated with or without isotype control, anti-IL-1R7 or IL-18BP for at least 30 minutes before they were stimulated with 1ng/ml IL-1β for 24 hours. Mean ± SD Percent change of IL-1β-induced cytokine production in human A549-hIL-1R7 cells with various concentrations of anti-IL-1R7 or its isotype control or IL-18BP (n ≧3 except for IL-1β +IL-18BP induced IL-1α where n=2 ). *P < 0.05, compared with IL-1β alone.



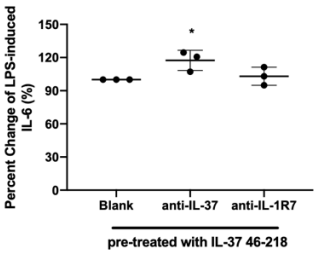

**Supplemental Figure 2. The effect of anti-IL-1R7 in comparison to the reference antibody MAB1181 on the IL-12/IL-18-induced IFNγ in human PBMC cultures.** Cells are pretreated with or without Ctrl, anti-IL-1R7 or the reference antibody MAB1181 for at least 30 minutes before they were stimulated with 2ng IL-12+20ng/ml IL-18 for 24 hours. Mean ± SD Percent change of IL-12/IL-18-induced IFNγ production in PBMCs with various concentrations of anti-IL-1R7 or its isotype control or the reference antibody MAB1181 (n=3 for all conditions). ***P < 0.001, **P < 0.01, *P < 0.05 compared with IL-12/IL-18 alone.



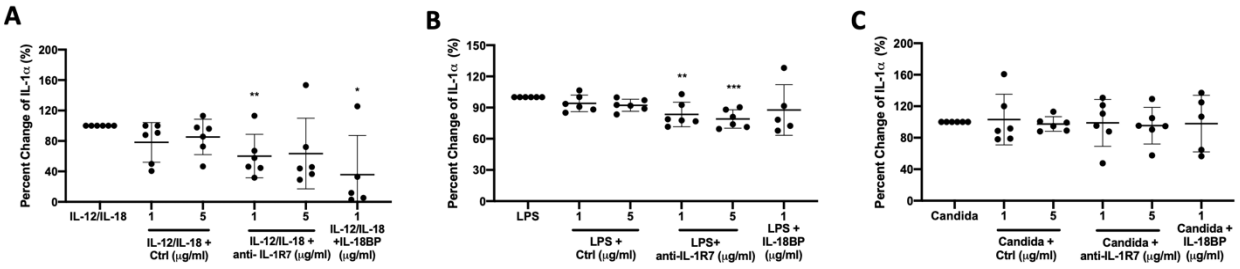

**Supplemental Figure 3. The effect of anti-IL-1R7 antibody on 3-day LPS-induced cytokine production in human PBMC culture.** Cells are pretreated with or without Ctrl, anti-IL-1R7 or IL-18BP or IL-1Ra for at least 30 minutes before they were stimulated with 10ng/ml LPS for 3 days. **(A)** Effect of anti-IL-1R7 on LPS-induced IFNγ in PBMC culture. **(B)** Effect of anti-IL-1R7 on LPS-induced TNFα in PBMC culture. **(C)** Effect of anti-IL-1R7 on LPS-induced IL-6 in PBMC culture. **(D)** Effect of anti-IL-1R7 on LPS-induced IL-1β in PBMC culture. Mean ± SD Percent change of LPS-induced cytokine production in PBMCs with various concentrations of anti-IL-1R7 or its isotype control or IL-18BP or IL-1Ra (n ≧4 for all conditions). ***P < 0.001, **P < 0.01, and *P < 0.05, compared with LPS alone.




**Supplemental Figure 4. The effect of anti-IL-1R7 antibody on *Candida*-induced cytokine production in human PBMC culture.** Cells were pretreated with or without isotype control, anti-IL-1R7 or IL-18BP or IL-1Ra for at least 30 minutes before they were stimulated with 1:200 *Candida* for 3-5 days. **(A)** Effect of anti-IL-1R7 on *Candida*-induced IFNγ in PBMC culture. **(B)** Effect of anti-IL-1R7 on *Candida*-induced TNFα in PBMC culture. **(C)** Effect of anti-IL-1R7 on *Candida*-induced IL-6 in PBMC culture. **(D)** Effect of anti-IL-1R7 on *Candida*-induced IL-1β in PBMC culture. Mean ± SD Percent change of *Candida*-induced cytokine production in PBMCs with various concentrations of anti-IL-1R7 or its isotype control or IL-18BP or IL-1Ra (n ≧4 for all conditions). ***P < 0.001, **P < 0.01, and *P < 0.05, compared with *Candida* alone.




**Supplemental Figure 5. The effect of anti-IL-1R7 in comparison to the monoclonal anti-IL-37 antibody on IL-37-regulated IL-6 production in LPS-stimulated PBMC.** Cells were pretreated for 1 hour with Blank (RPMI medium premixed with 1ng/ml recombinant IL-37 46-218), or anti-IL-37 premixed with recombinant IL-37 46-218, or anti-IL-1R7 premixed with recombinant IL-37 46-218 before they were stimulated with 10ng/ml LPS for 24 hours. Mean ± SD Percent change of LPS-induced IL-6 production in PBMCs in the presence of 1ng/ml recombinant IL-37 pretreated with or without 1μg/ml anti-IL-1R7 or anti-IL-37 monoclonal antibodies (n=3 for all conditions). *P < 0.05 compared with Blank (IL-37 pretreatment alone).




**Supplemental Figure 6. Effect of anti-IL-1R7 on various stimuli-induced intracellular IL-1α production in PBMC cultures.** Cells were pretreated with or without isotype control, anti-IL-1R7 or IL-18BP for at least 30 minutes before they were stimulated with **(A)** 2ng/ml IL-12+20ng/ml IL-18 or **(B)** 10ng/ml LPS or **(C)** 1:200 *Candida* for 1-5 days as indicated in *Experimental Procedures*. Mean ± SD Percent change of the corresponding stimulus-induced intracellular IL-1α production in PBMC with various concentrations of anti-IL-1R7 or its isotype control or IL-18BP (n ≧5). ***P < 0.001, **P < 0.01, and *P < 0.05, compared with the corresponding stimulus alone.