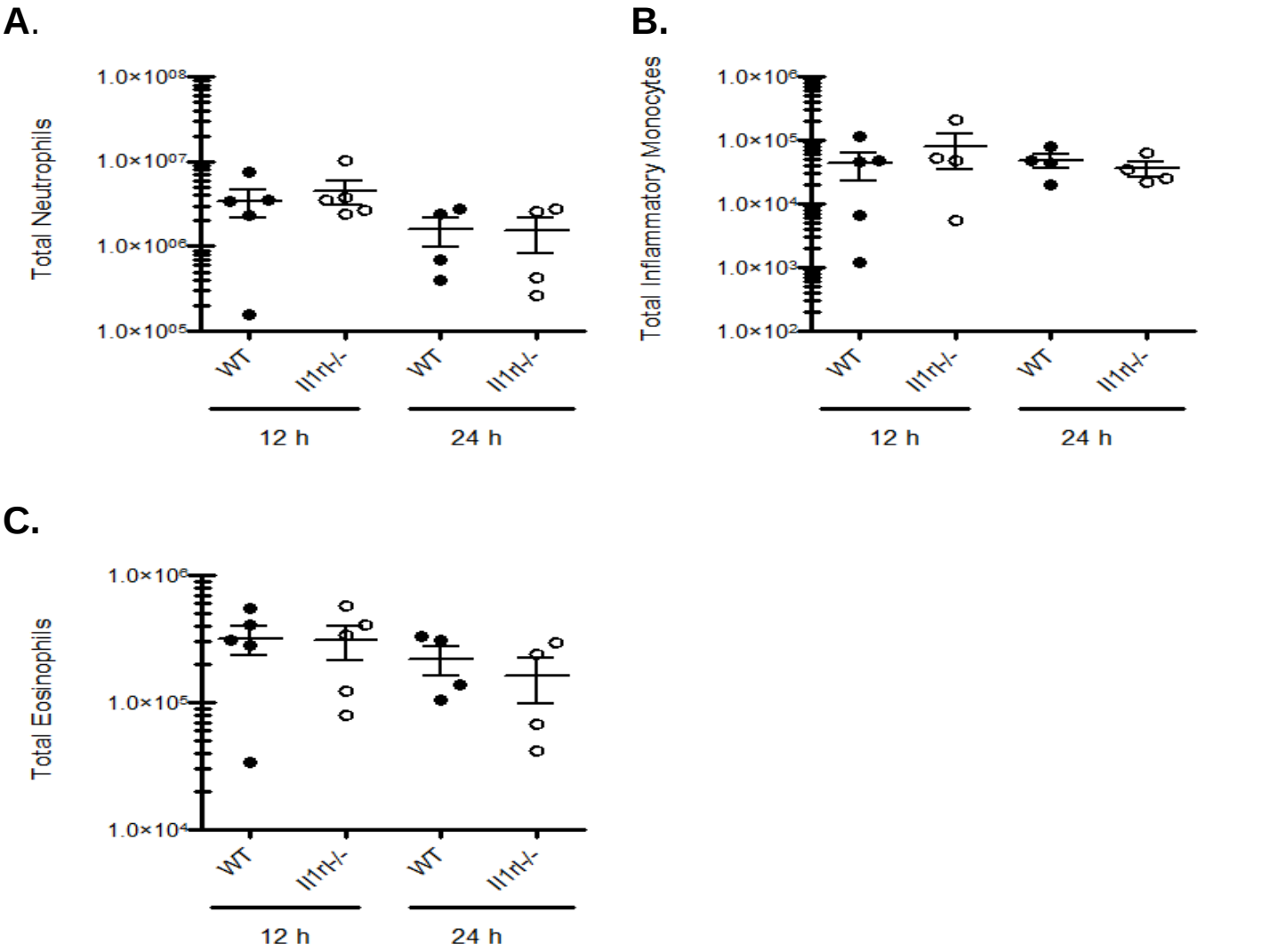
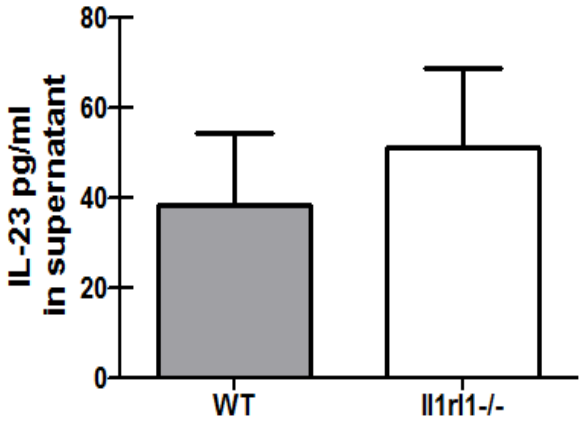
Supplemental Figure 1



Supplemental Figure 1. Innate cell levels in WT vs. *Il1rl1-/-* mice at 12 and 24 h post-*A. fumigatus* exposure. C57BL/6 wild-type (WT) and *Il1rl1-/-* (IL-1RL1; ST2 deficient) mice were challenged intratracheally with *A. fumigatus* conidia and 12 and 24 h after exposure**,** lung cells were isolated via enzymatic digestion, Fc-blocked, stained with a live/dead staining kit and thereafter stained with fluorochrome-conjugated CD11c, CD11b, Ly6G, Ly6C and Siglec F. Data are included for (A) neutrophils, (B) inflammatory monocytes and (C) eosinophils (A/C – gated on CD11b+ cells followed by Ly6G+ cells as neutrophils and Siglec-F+ cells as eosinophils; (B – gated on CD11b+ Ly6C+ cells followed by gating on CCR2+ cells as inflammatory monocytes).

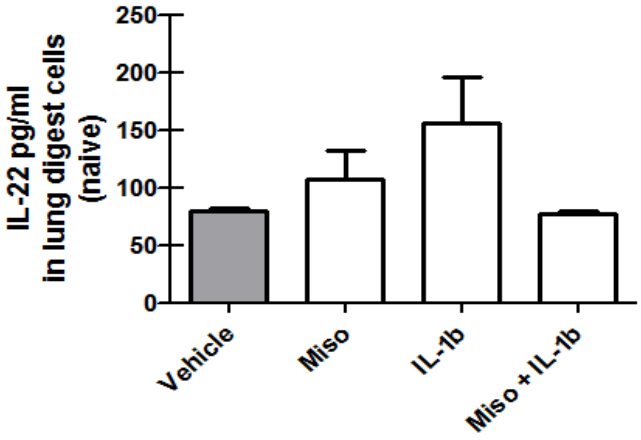
Supplemental Figure 2



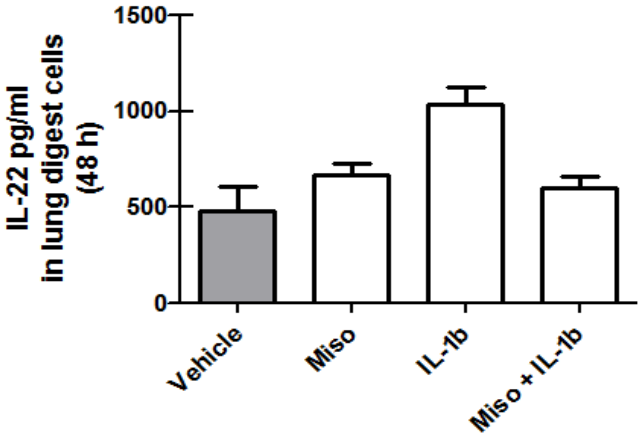
Supplemental Figure 2. *A. fumigatus* induced IL-23 production by bone marrow-derived dendritic cells (BMDCs) from WT and *Il1rl1*-/- mice. Bone marrow was collected from WT and *Il1rl1*-/- mice and dendritic cells differentiated over 6 days with GM-CSF and IL-4 using standard methods. BMDCs were cultured for 24 h in the presence of live *A. fumigatus* conidia at an effector to target ratio of 1:1. Thereafter, IL-23 levels were measured in co-culture supernatants by ELISA (R&D Systems).

Supplemental Figure 3

A.



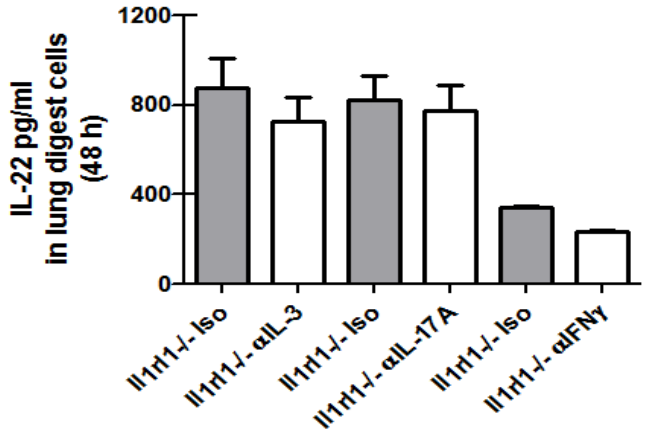
B.



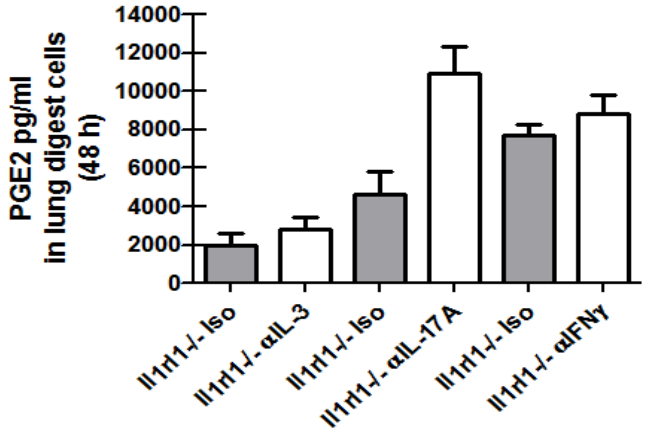
Supplemental Figure 3. Effect of IL-1β and the PGE2 receptor agonist misoprostol on IL-22 production by lung cells from naïve vs. *A. fumigatus* exposed mice. Naïve (A) or (B) *A. fumigatus* exposed C57BL/6 mice (48 h) were sacrificed, the right lungs were collected, enzymatically digested and unfractionated lung cells cultured in the presence of vehicle, misoprostol, IL-1β or both in triplicate for 24 h. IL-22 levels in co-culture supernatants were quantified by ELISA (R&D Systems)..

Supplemental Figure 4

A.



B.



Supplemental Figure 4. Effect of IL-3, IL-17A and IFN-γ neutralization on IL-22 production by lung cells from *A. fumigatus* exposed *Il1rl1-/-* mice. *Il1rl1-/-* (IL-1RL1; ST2 deficient) mice were challenged intratracheally with *A. fumigatus* conidia and 48 h after exposure, the right lungs were collected, enzymatically digested and unfractionated lung cells cultured in triplicate in the presence of anti-IL-3, anti-IL-17A or anti-IFNγ or their respective isotype controls (all antibodies from R&D Systems) in triplicate for 24 h. (A) IL-22 levels were quantified in clarified co-culture supernatants by Bio-Plex or ELISA (R&D Systems). (B) PGE2 levels were quantified in clarified co-culture supernatants by EIA (R&D Systems).