

Validation data for HEK-Blue™ IL-21 cells

<https://www.invivogen.com/hek-blue-il21>

For research use only

Version 23F27-AK

HEK-Blue™ IL-21 reporter cells have been specifically designed to detect bioactive human (h) and murine (m) IL-21 by monitoring the activation of the JAK-STAT pathway. HEK-Blue™ IL-21 cells were generated by stable transfection of the human embryonic kidney HEK293 cell line with the genes encoding human IL-21R α , IL-2R γ , JAK3, and STAT3 genes, to obtain a fully active IL-21 signaling pathway, as verified by functional assay (Figure 1). Importantly, these cells also respond to mIL-21. Since IL-21 belongs to the common γ chain cytokine family, the response of HEK-Blue™ IL-21 cells to members of this cytokine family as well as other cytokines has been determined (Figure 2).

Dose response to human and murine IL-21

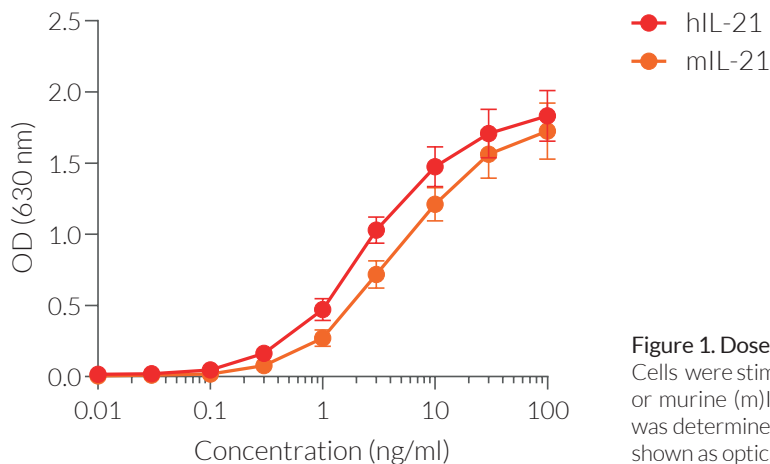


Figure 1. Dose-response of HEK-Blue™ IL-21 cells to recombinant IL-21 cytokines. Cells were stimulated with increasing concentrations of recombinant human (h)IL-21 or murine (m)IL-21. After overnight incubation, the NF- κ B-induced SEAP activity was determined using QUANTI-Blue™ Solution, a SEAP detection reagent. Data are shown as optical density (OD) at 630 nm (mean \pm SEM).

Cytokine response profile of HEK-Blue™ IL-21 cells

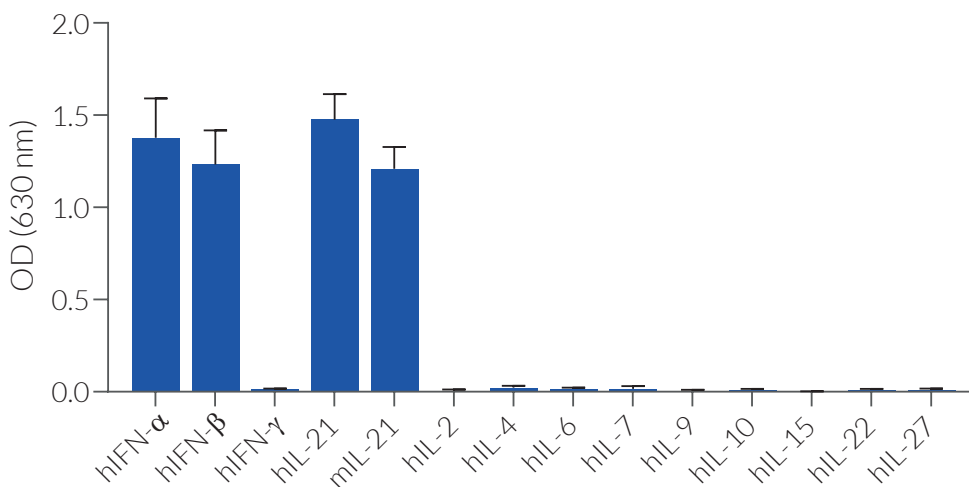


Figure 2. Cytokine response profile of HEK-Blue™ IL-21 cells. Cells were stimulated with various human and murine recombinant cytokines: hIFN- α (1000 U/ml), hIFN- β (1000 U/ml), hIFN- γ (10 n/ml), hIL-21 (10 ng/ml), mIL-21 (10 ng/ml), hIL-2 (10 ng/ml), hIL-4 (10 ng/ml), hIL-6 (10 ng/ml), hIL-7 (10 ng/ml), hIL-9 (10 ng/ml), IL-10 (10 ng/ml), hIL-15 (10 ng/ml), hIL-22 (10 ng/ml), and hIL-27 (10 ng/ml). After overnight incubation, the NF- κ B-induced SEAP activity was determined using QUANTI-Blue™ Solution. Data are shown as optical density (OD) at 630 nm (mean \pm SEM).

TECHNICAL SUPPORT

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