

Validation data for HEK-Blue™ IL-23 cells

<https://www.invivogen.com/hek-blue-il23>

For research use only

Version 19D18-MM

HEK-Blue™ IL-23 cells allow the detection of bioactive human (hIL-23) and murine IL-23 (mIL-23) by monitoring the activation of the STAT3 pathway. They were generated by the stable transfection of HEK293 cells with the genes for the human IL-23 receptor and STAT3 as well as a STAT3-inducible SEAP (secreted embryonic alkaline phosphatase) reporter. These cells can be used for screening anti-IL-23 antibodies. The response of this cell line to IL-23 and other cytokines has been determined (Figures 1 & 2). Of note, these cells also respond to IL-27, a STAT3-activating IL-12 family member, but do not respond to IL-12. Furthermore, due to the endogenous expression of the interferon- α/β receptor (IFNAR), these cells respond to type I IFNs.

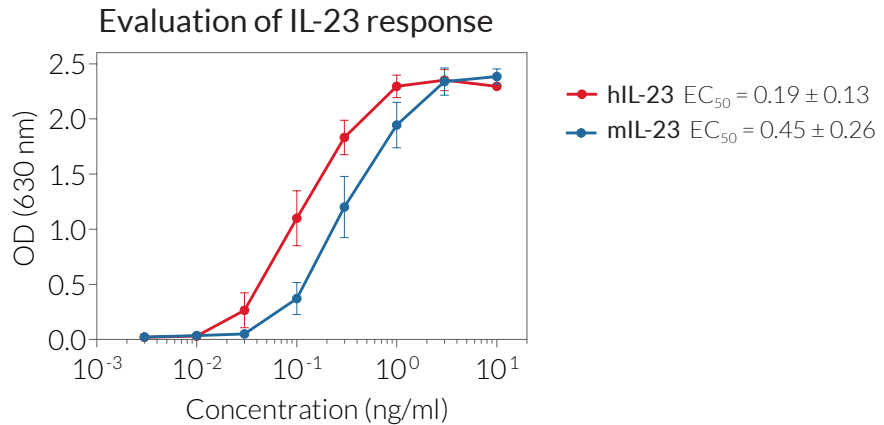


Figure 1. Dose-response of HEK-Blue™ IL-23 cells to recombinant IL-23. Cells were stimulated with increasing concentrations of recombinant human and murine IL-23. After overnight incubation, the STAT3 response was determined using QUANTI-Blue™, a SEAP detection reagent, and reading the optical density (OD) at 630 nm. EC₅₀ values are shown above as mean ± SD.

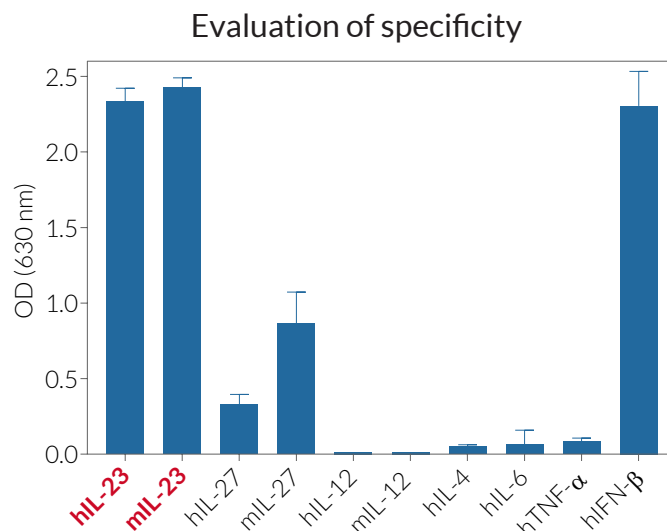


Figure 2. Cytokine response profile of HEK-Blue™ IL-23 cells. Cells were stimulated with various human and murine recombinant cytokines; 3 ng/ml of hIL-23, mIL-23, hIL-27, mIL-27, hIL-12, mIL-12, hIL-4, hIL-6, hTNF- α , and 1x10³ IU/ml hIFN- β . After overnight incubation, SEAP activity was assessed using QUANTI-Blue™. Of note, at high concentrations hIL-6 and hTNF- α may induce a weak response, while hIL-12 and mIL-12 do not induce a response even at high concentrations.

TECHNICAL SUPPORT

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