

Validation data for HEK-Blue™ IL-11 cells

<https://www.invivogen.com/hek-blue-il11>

For research use only

Version 21J11-NJ

HEK-Blue™ IL-11 cells allow the detection of bioactive human and murine IL-11 by monitoring the activation of the JAK/STAT pathway. These human embryonic kidney 293 (HEK293)-derived cells express the human IL-11R α , human STAT3, and a STAT3-inducible secreted embryonic alkaline phosphatase (SEAP) reporter. Human IL-11R α expression by these cells has been verified by RT-qPCR (Figure 1). HEK-Blue™ IL-11 cells respond to both human and murine IL-11 (Figure 2). Of note, although HEK-Blue™ IL-11 cells are also knock-out for the IL-6R gene, they display a residual response to IL-6 (Figure 3).

Validation of IL-11R α expression

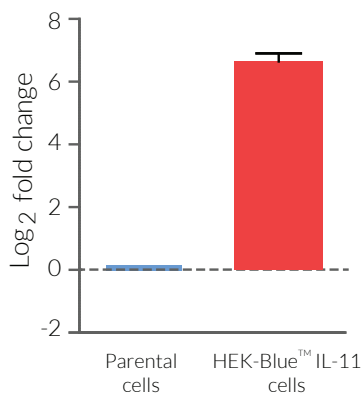


Figure 1. Human IL-11R α mRNA expression in HEK-Blue™ IL-11 cells.

Total mRNA was extracted from ~1x10⁶ HEK-Blue™ parental cells (blue) and HEK-Blue™ IL-11 cells (red). Human IL-11R α mRNA was amplified using quantitative RT-qPCR. Data are represented as the log₂ fold change comparing hIL-11R α relative expression between the two cell lines.

Cellular response to IL-11

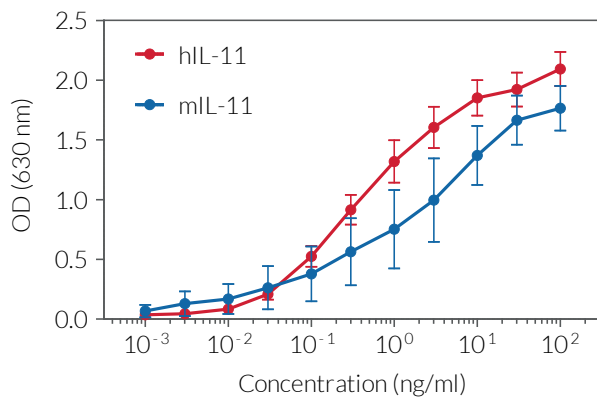


Figure 2. Dose-response of HEK-Blue™ IL-11 cells to recombinant IL-11.

Cells were stimulated with increasing concentrations of recombinant human IL-11 (hIL-11) and murine IL-11 (mIL-11). After overnight incubation, the STAT3 response was determined using QUANTI-Blue™ Solution, a SEAP detection reagent. The optical density (OD) at 630 nm is shown as mean \pm SEM.

Cell line specificity

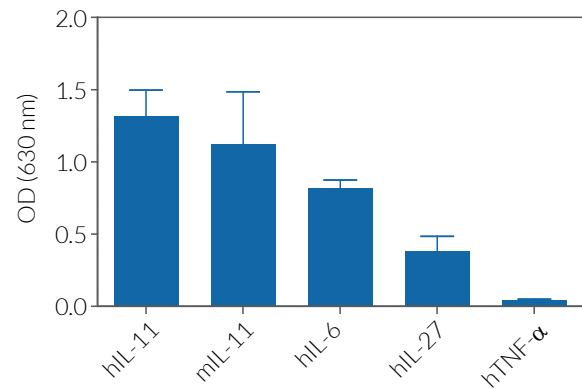


Figure 3. Response of HEK-Blue™ IL-11 cells to a panel of cytokines.

Cells were stimulated with various human and murine recombinant cytokines: 1 ng/ml of hIL-11, mL-11, or hIL-6, and 10 ng/ml hIL-27 or TNF- α . After overnight incubation, SEAP activity was assessed using QUANTI-Blue™ Solution. The optical density (OD) at 630 nm is shown as mean \pm SEM.

TECHNICAL SUPPORT

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