

# Validation data for HEK-Blue™ IL-17C cells

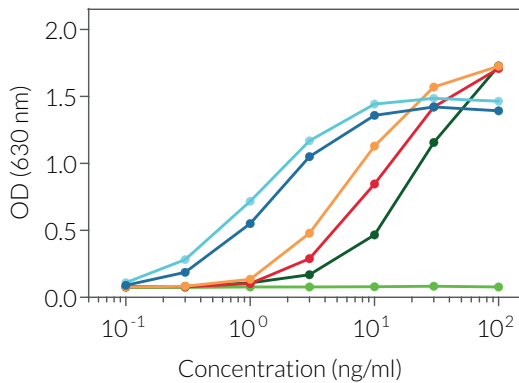
<https://www.invivogen.com/hek-blue-il17c>

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Version 19H13-MM

HEK-Blue™ IL-17C cells allow the detection of bioactive human (hIL-17C) and murine IL-17C (mIL-17C) by monitoring NF-κB and AP-1 activation. They were generated by stable transfection of HEK293 cells with the genes encoding the IL-17C heterodimeric receptor (IL-17RA/IL-17RE), the Act1 adaptor molecule, as well as an NF-κB- and AP-1-inducible SEAP (secreted embryonic alkaline phosphatase) reporter. These cells display high sensitivity to h/mIL-17C and h/mIL-17E with moderate sensitivity to hIL-17A (figures 1 & 2). They do not respond to mIL-17A nor h/mIL-17F. Of note, as HEK293 cells endogenously express the TNF-α and IL-1β receptors, these cells respond to TNF-α and IL-1β (figure 2). Additionally, these cells can be used for the screening of anti-IL-17C antibodies (figure 3).

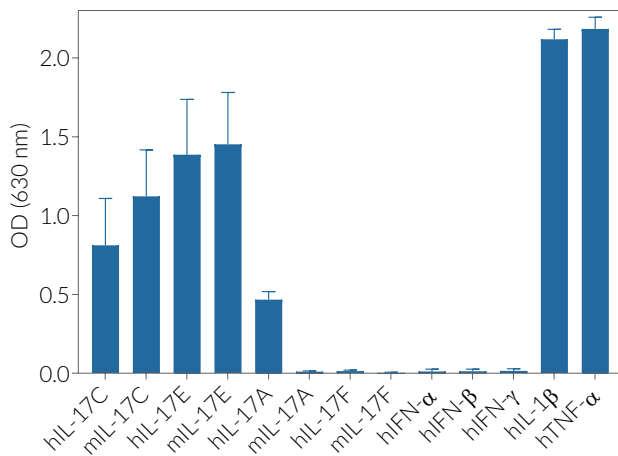
## Evaluation of IL-17 response



Cytokine	EC <sub>50</sub> (ng/ml)
hIL-17C	11.5 ± 6.4
mIL-17C	6.8 ± 4.4
hIL-17E	1.3 ± 1
mIL-17E	1.2 ± 1
hIL-17A	24 ± 13
mIL-17A	N/A

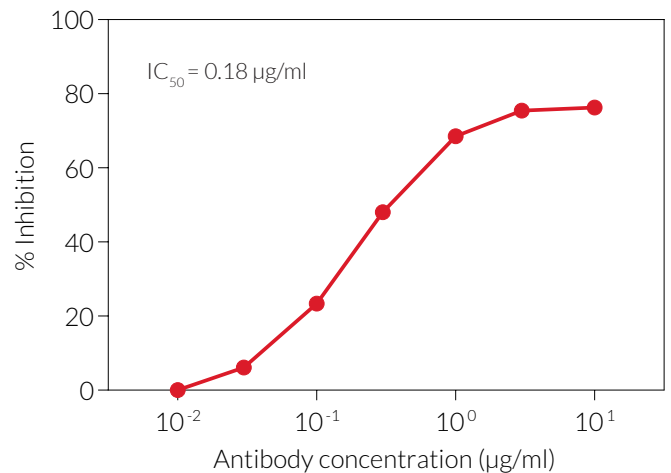
**Figure 1. Dose-response of HEK-Blue™ IL-17C cells to recombinant IL-17 cytokines.** Cells were stimulated with increasing concentrations of recombinant human or murine IL-17C, IL-17E, and IL-17A. After overnight incubation, the NF-κB response was determined using QUANTI-Blue™ Solution, a SEAP detection reagent, and reading the optical density (OD) at 630 nm. EC<sub>50</sub> values are shown as mean ± SD.

## Evaluation of specificity



**Figure 2. Cytokine response profile of HEK-Blue™ IL-17C cells.** Cells were stimulated with various human and murine recombinant cytokines: 10 ng/ml of hIL-17C, mIL-17C, hIL-17E, mIL-17E, hIL-17A, mIL-17A, 1x10<sup>4</sup> IU/ml of hIFN-α, hIFN-β, 100 ng/ml of hIFN-γ, and 1 ng/ml of hIL-1β and hTNF-α. After overnight incubation, SEAP activity was assessed using QUANTI-Blue™ Solution. HEK-Blue™ IL-17C cells do not respond to hIL-17B nor hIL-17D (data not shown).

## Evaluation of IL-17 signaling inhibition



**Figure 3. Dose-dependent inhibition of the human IL-17C response using a neutralizing antibody against the human IL-17RA receptor in HEK-Blue™ IL-17C cells.** The antibody was incubated with HEK-Blue™ IL-17C cells for 30 minutes prior to the addition of 30 ng/ml of hIL-17C. After overnight incubation, SEAP activity in the cell culture supernatant was assessed using QUANTI-Blue™ Solution. Data represent % inhibition of reporter activity.

### TECHNICAL SUPPORT

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