

# Validation data for recombinant B18R

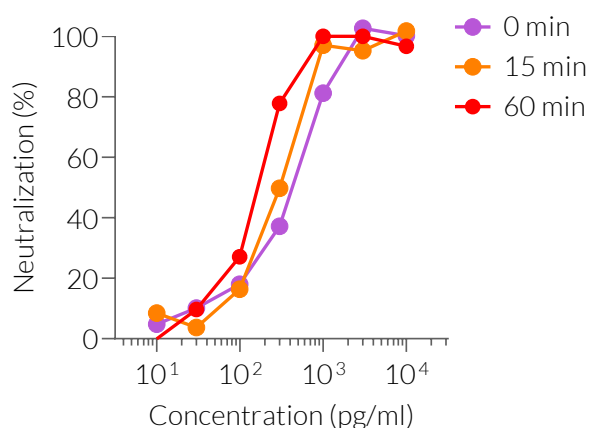
<https://www.invivogen.com/b18r>

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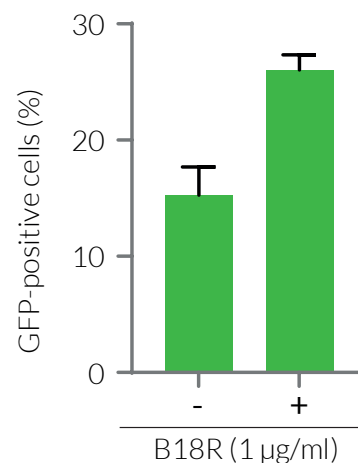
B18R, also called the soluble IFN- $\alpha/\beta$  receptor B18, is a viral protein naturally encoded by the western reserve (WR) strain of the vaccinia virus. It acts as a decoy receptor of type I interferons (IFNs). B18R has also been reported to increase cell viability and mRNA transfection efficacy, especially during pluripotent stem cell (iPSC) reprogramming. InvivoGen's recombinant B18R successfully blocks type I IFN-mediated signaling, as verified in HEK-Blue™ IFN- $\alpha/\beta$  cells stimulated for 0 min, 15 min, or 1 hour with recombinant human IFN- $\alpha$  (Figure 1). Also, it increases RNA-transfection efficacy, as verified by transfecting THP1-Dual™ cells with GFP mRNA  $\pm$  B18R (Figure 2).

## Dose-dependent neutralization of hIFN- $\alpha$ signaling



**Figure 1. Recombinant B18R is a potent inhibitor of human IFN- $\alpha$ .** Increasing concentrations of recombinant B18R were incubated for 0 min, 15 min, or 1 hour with the recombinant human IFN- $\alpha$ 2b (0.1 ng/ml) prior to the addition of HEK-Blue™ IFN- $\alpha/\beta$  cells. After overnight incubation, SEAP activity in the cell culture supernatant was assessed using QUANTI-Blue™ Solution. Data are shown in percentage (%) of neutralization.

## Enhanced mRNA transfection in THP-1 cells



**Figure 2. Enhanced mRNA transfection in THP-1 cells.** The transfection efficacy of B18R (1  $\mu$ g/ml) transfecting THP1-Dual™ cells with 100 ng of GFP mRNA using lipofection technology was assessed using flow cytometry. The percentage (%) of GFP-expressing and viable cells is shown.

### TECHNICAL SUPPORT

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