

#12786 Store at -20C

Human Interleukin-6 Receptor α (hIL-6R α)

10 μ g



Cell Signaling
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MW (kDa):
38

UniProt ID:
#P08887

Entrez-Gene Id:
3570

Background

The IL-6 receptor is a heterodimeric complex that consists of a ligand-binding IL-6 receptor α (IL-6R α) subunit and a signaling component, gp130 (1). Binding of IL-6 to IL-6R α results in dimerization of receptor with gp130 and subsequent STAT3 activation (1). IL-6R α is cleaved from the cell surface by ADAM17 (1,2). In humans, soluble IL-6R α is also generated via alternatively spliced mRNA (1,3). Soluble IL-6R α binds to IL-6 and can stimulate signaling via membrane bound gp130 in a process known as "trans-signaling" (1). It is through trans-signaling that IL-6 stimulates cells that do not express membrane bound IL-6R α (1).

Endotoxin

Less than 0.01 ng endotoxin/1 μ g hIL-6R α .

Purity

>90% as determined by SDS-PAGE of 6 μ g reduced (+) and nonreduced (-) recombinant hIL-6R α . All lots are greater than 90% pure.

Source / Purification

Recombinant Human Interleukin-6 Receptor α (hIL-6R α) Leu20 - Asp358 (Accession #NP_000556) was expressed in human 293 cells at Cell Signaling Technology.

Bioactivity

The activity of hIL-6R α was determined by assessing its ability to enhance IL-6 mediated inhibition of M1 cells proliferation. The ED₅₀ of each lot is between 2 and 15 ng/ml.

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Background References

1. Rose-John, S. (2012) *Int J Biol Sci* 8, 1237-47.
2. Müllberg, J. et al. (1993) *Eur J Immunol* 23, 473-80.
3. Lust, J.A. et al. (1992) *Cytokine* 4, 96-100.

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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