

Recombinant Rat Il6r, His-tagged

Cat. No. Il6r-9168H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Il6r protein, a DNA sequence encoding the extracellular domain of rat IL6R corresponding to amino acid (1-357) was expressed with a C-terminal polyhistidine tag in HEK293.
Species	Rat
Source	HEK293
ProteinLength	1-357a.a.
Description	Interleukin 6 (IL6) is a potent pleiotropic cytokine that regulates cell growth and differentiation of various tissues, and is known particularly for its role in the immune response and acute phase reactions. The IL6 receptor is composed of two different subunits, IL6R that binds IL6 with low affinity, and ubiquitously expressed Glycoprotein 130 (gp130) which acts as a common signal-transducing receptor and binds the IL-6·IL-6R complex with high affinity. The IL6R, also known as CD126, is a type I transmembrane cytokine receptor and lacks a tyrosine/kinase domain within the cytoplasmic region, unlike other growth factor receptors. The soluble form of IL6R arises from proteolytic cleavage of membrane-bound IL6R α , and acts agonistically by making the IL6 ligand accessible to the signal transducer gp130. Dysregulated production of IL6 and IL6R are implicated in the pathogenesis of several inflammatory diseases and malignancies such as multiple myeloma, rheumatoid arthritis, or osteoporosis, and it has been reported that a humanized anti-IL6R monoclonal antibody is a promising agent applicable to the therapeutic approach for IL6 driven

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	diseases.
Form	Lyophilized. 25 mM Tris-HCl, pH7.4, 300 mM NaCl, 1 mM DTT, 5%Trehalose
Molecular Mass	The soluble form of recombinant rat IL6R consists of 357 amino acids and has a predicted molecular mass of 40 kDa. In SDS-PAGE under reducing conditions, it migrates with an apparent molecular mass of 60-65 kDa due to glycosylation.
AA Sequence	MLAVGCTLLVALLAAPAVALVLGSCRALEVANGTVTSLPGATVTLICPGKEAAGNATI HWVYSGSQSREWTTTGN TLVLRVQVNDTGHYLCFLDDHLVGTVP LLVDVPPEEP KLSCFRKNPLVNAFCEWHPSSPTSPSTTKAVMFAKKIN TTNGKSDFQVPCQYSQQLK SFSCEVEILEGDKVYHIVSLCVANSVGSRSSHN VVFQSLKMVQPDPPANLVVSAIP G RPRWLK VSWQDPESWDPSYYLLQFELRYRPVWSKTFTVWPLQVAQHQCVIHDALR GVKHVVQVRGKEEFDIGQW SKWSPEVTGTPWLAEPRTTPAGIPGNPTQVSVEDYD NHEDQYGSSTEATSVLAPVQG
Purity	>90% as determined by SDS-PAGE
Storage	Store it at +4°C for short term. For long term storage, store it at -20°C -70°C
Reconstitution	It is recommended to reconstitute the lyophilized rat CD126 in 0.1ml sterile and pre-cooled ddH ₂ O, which can then be further diluted to other aqueous solutions.

GENE INFORMATION

Gene Name	Il6r interleukin 6 receptor [<i>Rattus norvegicus</i>]
Official Symbol	Il6r
Synonyms	IL6R; interleukin 6 receptor; interleukin-6 receptor subunit alpha; IL-6RA; IL-6R 1; IL-6R-alpha; IL-6R subunit alpha; IL-6 receptor subunit alpha; interleukin 6 receptor,

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	alpha; IL6R1; IL6ra;
Gene ID	24499
mRNA Refseq	NM_017020
Protein Refseq	NP_058716
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Hematopoietic cell lineage, organism-specific biosystem; Hematopoietic cell lineage, conserved biosystem; IL-6 Signaling Pathway, organism-specific biosystem; Jak-STAT signaling pathway, organism-specific biosystem; Jak-STAT signaling pathway, conserved biosystem;
Function	ciliary neurotrophic factor binding; ciliary neurotrophic factor binding; contributes_to ciliary neurotrophic factor receptor activity; cytokine receptor activity; enzyme binding; enzyme binding; interleukin-6 binding; interleukin-6 binding; interleukin-6 receptor activity; interleukin-6 receptor activity; contributes_to interleukin-6 receptor activity; interleukin-6 receptor binding; contributes_to interleukin-6 receptor binding; protein homodimerization activity; protein homodimerization activity; receptor activity;