

Recombinant Cynomolgus IL6R, His-tagged

Cat. No. IL6R-9166H **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant Cynomolgus IL6R protein, a DNA sequence encoding the extracellular domain of Cynomolgus IL6R corresponding to amino acid (1-358) was expressed with a C-terminal polyhistidine tag in HEK293.

Species Macaca mulatta

Source HEK293

ProteinLength 1-358 a.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 Cynomolgus IL6R consists of 358 amino acids and has a predicted molecular mass of 40kDa. In SDS-PAGE under reducing conditions, it migrates with an apparent molecular mass of 60-65 kDa due to glycosylation.

AA Sequence
 MLAVGCALLAALLATPGAALAPGGCPAQEVARGVLTSLPGDSVTLTCPGGEPEDNA
 TVHWVLRKPAEGSHLSRWA GVGRLLLLRSVQLHDSGNYSYRAGRPAATVHLLVD
 VPPEEPQLSCFRKSPNSNVVCEWGPRSTPSPTTKAVLLV RKFQNSPAEDFQPCQ
 YSQESQKFSCQLAVPEGDSSFYIVSMCVASSVGSKLSKTQTFQGGILQPDPPANIT
 VT AVARNPRWLSVTWQDPHSWNSSFYRLRFELRYRAERSKTFTTWMVKDLQHHC
 VIHDAWSGLRHVVQLRAQEEFGQ GEWSEWSPEAMGTPWTESRSPPAENEVSTPT
 QAPTTNKDDDNILSGDSANATSLPVQD

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 Cynomolgus CD126 in 0.1ml sterile and pre-cooled ddH₂O, which can then be further diluted to other aqueous solutions.

GENE INFORMATION

Gene Name IL6R interleukin 6 receptor [*Macaca mulatta*]

Official Symbol IL6R

Synonyms IL6R; interleukin 6 receptor; Ensembl:ENSMMUG00000022978; interleukin-6 receptor subunit alpha;

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Gene ID

716690

Pathway

Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; HIF-1 signaling pathway, organism-specific biosystem; Hematopoietic cell lineage, organism-specific biosystem; Hematopoietic cell lineage, conserved biosystem; Jak-STAT signaling pathway, organism-specific biosystem; Jak-STAT signaling pathway, conserved biosystem;

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