

Recombinant Human IL-6RA/CD126 Protein

Catalog No.: RP01396 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3570	P08887

Tags

C-hFc&His

Synonyms

IL6R;CD126;IL-6R-1;IL-6RA;IL6Q;IL6RA;IL6RQ;gp80

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

<1EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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Background

The soluble form of recombinant human IL6R consists of 357 amino acids with a molecular weight of 40 kDa. It migrates with an apparent molecular mass of 60-65 kDa due to glycosylation in SDS-PAGE under reducing conditions. Interleukin 6 receptor (IL-6R) also known as CD126 (Cluster of Differentiation 126) 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 low concentration of a soluble form of IL-6 receptor (sIL-6R) acts as an agonist of IL-6 activity. In the IL-6R/CD126/IL6R system, both a membrane-bound IL-6R and a sIL-6R protein are able to mediate IL-6 signals into the cells through the interaction of gp13. The resulting IL-6/sIL-6R protein complex is also capable of binding to gp13 and inducing intracellular signalling. Through this so-called "trans-signalling" mechanism, IL-6 is able to stimulate cells that lack an endogenous mL-6R. Dysregulated production of IL6 and IL6R are implicated in the pathogenesis of several inflammatory diseases and malignancies, and it has been reported that a humanized anti-IL6R monoclonal antibody is a promising agent applicable to the therapeutic approach for IL6 driven diseases.

Basic Information

Description

Recombinant Human IL-6RA/CD126 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu20-Asp358) of human IL-6R alpha/CD126 (Accession #NP_000556.1) fused with a Fc, 6xHis tag at the C-terminus.

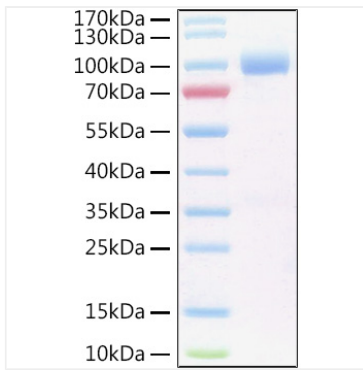
Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Human IL6 at 1 μg/mL (100 μL/well) can bind Human IL6RA with a linear range of 1-5.4 ng/mL.

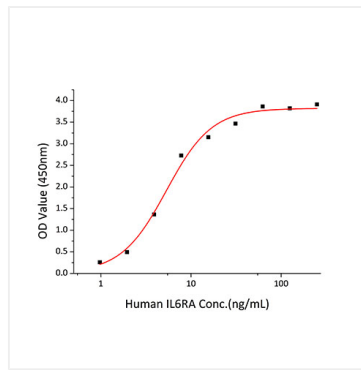
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human IL-6RA/CD126 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 80-100kDa.



Immobilized recombinant Human IL6 at 1 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind Human IL6RA with a linear range of 1-5.4ng/mL.