

Recombinant Rat IL-6RA/CD126 Protein

Catalog No.: RP03223

Sequence Information

Species Gene ID

Rat 24499

Swiss Prot Tags

P22273 C-His

Synonyms

IL-6 receptor subunit alpha; IL-6R subunit alpha; IL-6R-alpha; IL-6RA; CD126; Il6ra; Il6r

Product Information

Source Purification

HEK293 cells ≥ 90 % as determined by SDS-PAGE.

Calculated MW Observed MW

39.5 kDa.

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

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.

Background

IL-6R alpha (IL-6RA) is a subunit alpha of IL-6 receptors, also shared by other interleukin receptors. IL-6RA is a type I transmembrane glycoprotein, which forms a complex with the type I transmembrane signal transducer Glycoprotein 130 (CD130) and regulates the biological activity of IL-6 with a low affinity. IL-6RA acts as IL-6 agonist and involves in JAK/STAT, MAPK, and Akt signaling pathway. IL-6RA has 2 isoform including mIL-6R (the longer one) or sIL-6R (the shorter one): The mIL-6R is membrane-bound interleukin-6 receptor, has the potential to drive naive CD4+ T cells to the Th17 lineage, through 'cluster signaling' by dendritic cells. The sIL-6R is soluble interleukin-6 receptor subunit, cleaved from IL-6RA in activated CD4+ T cells by proteolysis, and serves as IL-6 agonist. sIL-6R binds membrane-bound IL-6R and subunit IL6ST to activate regenerative and anti-inflammatory signal via IL-6 trans signaling and promotes pro-inflammatory properties of IL-6. The hydrolysis of IL-6R alpha is also called ectodomain shedding. IL-6RA involves in regulating cell growth and differentiation, and plays an important role in regulation of immune response, acute-phase reactions and hematopoiesis. However, IL-6RA shows tissue expression specificity in liver and some cells of the immune system, thus results a limitation of IL6 signaling. It's worth noting that IL-6RA dysregulation is implicated in the pathogenesis of many diseases, such as multiple myeloma, autoimmune diseases, and prostate cancer.

Basic Information

Description

Recombinant Rat IL-6RA/CD126 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu20-Pro364) of Rat IL-6RA/CD126 (Accession #NP_058716.2) fused with His tag at the C-terminus.

Activity

Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

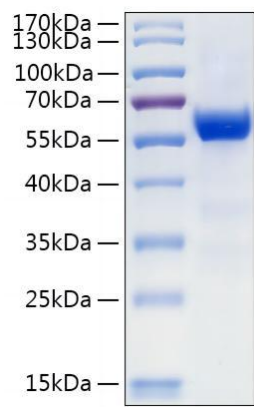
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Validation Data



Recombinant Rat IL-6RA/CD126 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.