

Rat gp130 / IL6ST / CD130 Protein (His Tag)

Catalog Number: 80030-R08H



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Biological Solution Specialist

General Information

Gene Name Synonym:

IL6ST

Protein Construction:

A DNA sequence encoding the rat IL6ST (NP_001008725.2) extracellular domain (Met 4-Glu 618) was fused with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to inhibit the IL6 α enhancement of IL6 activity on M1 mouse myeloid leukemia cells (Saito, T. et al. 1991, J. Immunol. 147:168.). The ED_{50} for this effect is typically 0.5-2 μ g/ml in the presence of 50 ng/ml recombinant human IL6sR and 100 ng/ml recombinant human IL6.

Endotoxin:

< 1.0 EU per μ g of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 23

Molecular Mass:

The secreted recombinant rat IL6ST comprises 607 amino acids and predicts a molecular mass of 68.2 kDa. The apparent molecular mass of the rat IL6ST is approximately 90-100 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

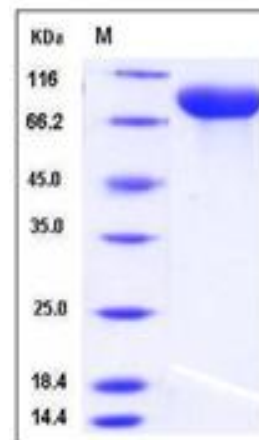
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Glycoprotein 130 (also known as gp130, IL6ST, IL6-beta or CD130) is a transmembrane protein which is the founding member of the class of all cytokine receptors. CD130/gp130 is a signal transducer shared by many cytokines, including interleukin 6 (IL6), ciliary neurotrophic factor (CNTF), leukemia inhibitory factor (LIF), and Oncostatin M (OSM). CD130/gp130 functions as a part of the cytokine receptor complex. The activation of this protein is dependent upon the binding of cytokines to their receptors. CD130/gp130 plays a critical role in regulating myocyte apoptosis. Alternatively spliced transcript variants encoding distinct isoforms have been described. A related pseudogene has been identified on chromosome 17. The receptor systems for IL6, LIF, OSM, CNTF, IL11, CTF1 and BSF3 can utilize gp130 for initiating signal transmission. CD130/gp130 binds to IL6/IL6R (alpha chain) complex, resulting in the formation of high-affinity IL6 binding sites, and transduces the signal. CD130/gp130 may have a role in embryonic development. The type I OSM receptor is capable of transducing OSM-specific signaling events.

References

- 1.Hibi, *et al.* (1990) Molecular cloning and expression of an IL-6 signal transducer, gp130. *Cell*. 63 (6): 1149-57.
- 2.Kim H, *et al.* (1997) Transmembrane domain of gp130 contributes to intracellular signal transduction in hepatic cells. *J Biol Chem*. 272 (49): 30741-7.
- 3.Giordano V, *et al.* (1997) Shc mediates IL-6 signaling by interacting with gp130 and Jak2 kinase. *J Immunol*. 158 (9): 4097-103.

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