

gp130/IL6ST Protein, Human (HEK293, His)

Cat. No.:	HY-P701319
Synonyms:	Interleukin-6 receptor subunit beta; IL-6RB; CDw130; gp130; CD130; IL6ST
Species:	Human
Source:	HEK293
Accession:	P40189 (E23-E619)
Gene ID:	3572
Molecular Weight:	78-110 kDa

PROPERTIES

Appearance	Lyophilized powder
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>gp130/IL6ST, a signal-transducing molecule, serves as a crucial component in receptor systems for various cytokines, including IL6, LIF, OSM, CNTF, IL11, CTF1, and BSF3, facilitating signal transmission. Upon binding of IL6 to IL6R, IL6ST undergoes homodimerization, forming a high-affinity receptor complex that activates the JAK-MAPK and JAK-STAT3 signaling pathways. This activation leads to the phosphorylation of IL6ST tyrosine residues, subsequently activating STAT3. Simultaneously, IL6 signaling induces the expression of cytokine receptor signaling inhibitors, SOCS1 and SOCS3, establishing a negative feedback loop to regulate JAK activity (By similarity). Furthermore, IL6ST plays a role in controlling inflammation-induced epithelial regeneration independently of STAT3 by activating the yes-associated protein 1 (YAP) and NOTCH pathways (By similarity). Acting as a receptor for the neuroprotective peptide humanin in conjunction with IL27RA/WSX1 and CNTFR, IL6ST mediates signals crucial for immune response, hematopoiesis, pain control, bone metabolism, and embryonic development (By similarity). Additionally, IL6ST is essential for the survival and differentiation of motor and sensory neurons, the expression of TRPA1 in nociceptive neurons, and the maintenance of PTH1R expression in the osteoblast lineage (By similarity). It binds to the soluble IL6:sIL6R complex, known as hyper-IL6, inhibiting IL6 trans-signaling and blocking IL11 cluster signaling through IL11R.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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