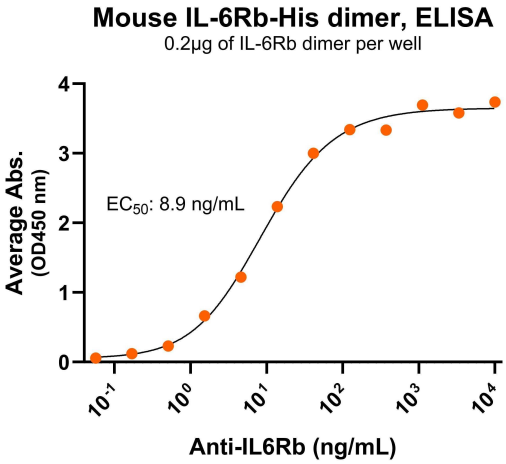
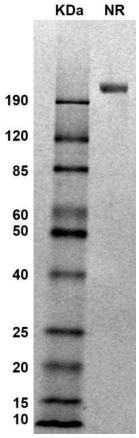
Mouse IL-6Rb Protein Dimer, His Tag
Product Code: CSP-25159-01
For Research Use Only (RUO)

Bioactivity – Antibody Binding



Immobilized mouse IL-6Rb-His dimer protein (CSP-25159-01) at 2 μg/mL (100 μL/well) can bind anti-mouse IL-6Rb monoclonal antibody with half maximal effective concentration (EC50) range of 4.4-17.8 ng/mL (QC tested).

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: IL-6Rb dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reducing condition is >190 kDa on SDS PAGE.

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Expression Host
HEK293T

Protein Name
IL6Rb

Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Alternate Name(s)
Interleukin 6 Cytokine Family Signal Transducer, IL6ST, Cluster of Differentiation 130, CD130, CDW130, glycoprotein 130, GP130, Interleukin-6 receptor subunit beta, IL-6R-beta IL6Rb, IL-6RB, IL-6R beta, IL6β, interleukin 6 signal transducer

Protein Construct
Mouse IL-6Rb dimer protein contains an IL-6Rb extracellular domain (UniProt# Q00560) fused with a proprietary dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range
Q23-E617

SDS-Page Molecular Weight
149 kDa. The migration range of the dimer protein with glycosylation under non-reducing condition is >190 kDa on SDS PAGE.

Formulation
0.22μm filtered PBS, pH 7.4

Shipping Conditions
Frozen Dry Ice

Stability & Storage
-80^{0}C

Background

Interleukin-6 receptor subunit beta (IL-6Rb) is a transmembrane protein and a member of the class of tall cytokine receptors. IL-6Rb is also known as Interleukin 6 Cytokine Family Signal Transducer (IL6ST), Cluster of Differentiation 130 (CD130), CDW130, and glycoprotein 130 (gp130). IL-6Rb serves as a shared signal transducing subunit of the receptor complexes for mouse cytokines, including interleukin-6 (IL-6), that mediate highly diverse biological processes. IL-6Rb can form homodimers and heterodimers with other cytokine receptors (i.e., IL-6 receptor alpha (IL-6Ra)) in response to cytokine binding. The homodimerization or heterodimerization of IL-6Rb is key to initiating intracellular signaling pathways. The extracellular domain of IL-6Rb includes an N-terminal immunoglobulin-like (Ig-like) domain (D1), a cytokine-binding homology region (CHR, D2D3), and three membrane-proximal fibronectin type III domains (FNIII, D4 to D6) followed by a transmembrane domain and cytoplasmic domain. It has been found that dysregulation of IL-6Rb expression and signaling mediates progression for multiple types of cancer and autoimmune diseases. Mouse IL-6Rb, the murine homolog of human IL-6Rb with conserved structural domains, is a species-specific tool essential for basic research, translational research and preclinical studies.