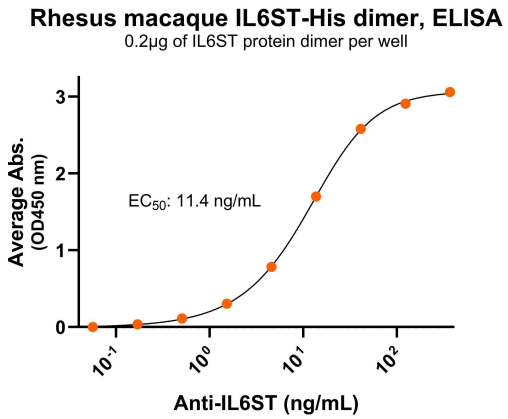
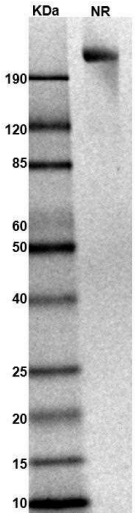
Bioactivity – Antibody Binding



Immobilized Rhesus macaque IL6ST protein dimer, His Tag (Cat. No. CSP-25296-01) at 2 μg/mL (100 μL/well) can bind anti-non-human primate IL6ST monoclonal antibody with half maximal effective concentration (EC50) range of 5.7-22.9 ng/mL (QC tested).

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: IL6ST dimer under non-reduced condition

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

Rhesus macaque IL6ST Protein Dimer, His Tag
Product Code: CSP-25296-01
For Research Use Only (RUO)

Expression Host
HEK293T

Protein Name
IL6ST

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

Alternate Name(s)
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
IL6ST dimer protein contains an IL6ST extracellular domain (UniProt# F7FXB6) fused with a proprietary dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range
E47-E643

SDS-Page Molecular Weight
152 kDa. The migration range of the heterodimer protein with glycosylation under non-reducing conditions 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 cytokine family signal transducer (IL6ST) is a transmembrane protein and a member of the class of tall cytokine receptors. IL6ST is also known as interleukin-6 receptor subunit beta (IL-6Rb), Cluster of Differentiation 130 (CD130), CDW130, and glycoprotein 130 (gp130). IL6ST serves as a shared signal transducing subunit of the receptor complexes for Rhesus macaque cytokines, including interleukin-6 (IL-6), that mediate highly diverse biological processes. IL6ST 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 IL6ST is key to initiating intracellular signaling pathways. The extracellular domain of IL6ST 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 IL6ST expression and signaling mediates progression for multiple types of cancer and autoimmune diseases. Inhibition of IL6ST activity offers a potential and promising approach to cancer and autoimmune disease therapy. While structurally and functionally similar to human IL6ST (also known as gp130) homodimer, Rhesus macaque IL6ST homodimer is a species-specific tool essential for preclinical studies, basic research, and translational research.