Active Recombinant Human IL6R protein, His/Avi-tagged, Biotinylated

Cat. No. IL6R-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human IL6R(Leu20-Pro365) protein, fused to His/Avi tag at the C-terminus, was expressed in CHO cells .
Species	Human
Source	CHO
ProteinLength	Leu20-Pro365
Description	Interleukin-6 receptor subunit alpha (IL-6Ra), also known as membrane glycoprotein 80 (gp80), IL-6R 1 or CD126, is a single-pass type I membrane protein of the interleukin receptor family. Human IL-6Ra is an 80 kDa receptor component that binds IL-6 with low affinity and forms one-half of the IL-6R receptor complex. IL-6Ra associates with a non-ligand binding 130 kDa glycoprotein signal-transducing component (CD130; gp130) for high-affinity binding to IL-6 (1-4). When bound to IL-6, the IL-6R complex forms a trimer, which homodimerizes to form a hexameric cellular signaling complex (1, 4). Human IL-6Ra consists of an extracellular domain (ECD) with an N-terminal Ig-like C2-type domain and a cytokine-binding domain containing two fibronectin type-III domains with a WSXWS motif, a helical transmembrane segment and a cytoplasmic domain. Within the mature ECD, human IL-6Ra shares 51% and 52% amino acid sequence identity with mouse and rat IL-6Ra, respectively. Soluble forms of IL-6Ra can be generated via ADAM10 and ADAM17 cleavage of membrane bound IL-6Ra, alternative mRNA splicing and microvesicle release (3, 4).

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	Unlike gp130 that is expressed ubiquitously, the cellular distribution of IL-6 R alpha is predominantly limited to hepatocytes and leukocyte subpopulations such as monocytes, neutrophils, T and B cells. Soluble IL-6R alpha has been found in various body fluids (5). It has been documented that elevated soluble IL-6 R is associated with numerous diseases including arthritic lesions, multiple myeloma and Crohn's disease (6, 7). Our Avi-tag Biotinylated IL-6Ra features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.
Predicted N Terminal	Leu20
Form	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Human IL6 is immobilized at 0.25 μg/mL (100 μl/ well), Biotinylated Recombinant Human IL6R His-tag Avi-tag binds with an ED50 of 0.1-1 μg/mL.
Molecular Mass	65-80 kDa, under reducing conditions
Endotoxin	<0.10 EU per 1 μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.12 months from date of receipt, -20 to -70 °C as supplied.1 month, 2 to 8 °C under sterile conditions

	after reconstitution.3 months, -20 to -70 °C under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 1 mg/mL in PBS.
Conjugation	Biotin

GENE INFORMATION

Gene Name	IL6R interleukin 6 receptor [Homo sapiens]
Official Symbol	IL6R
Synonyms	IL6R; interleukin 6 receptor; interleukin-6 receptor subunit alpha; CD126; IL-6R 1; CD126 antigen; membrane glycoprotein 80; IL-6 receptor subunit alpha; gp80; IL6RA; IL-6RA; IL-6R-1; MGC104991;
Gene ID	3570
mRNA Refseq	NM_000565
Protein Refseq	NP_000556
MIM	147880
UniProt ID	P08887

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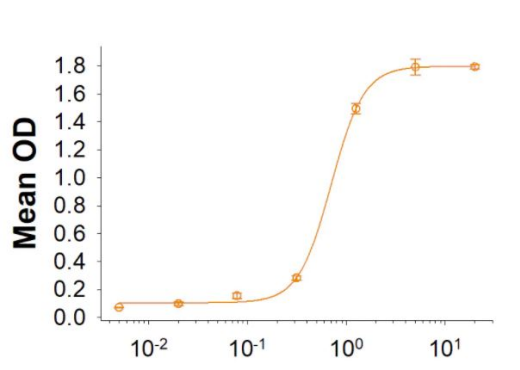
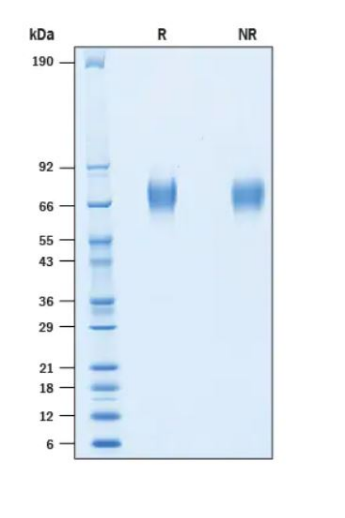
Binding Activity	
SDS-PAGE	 2 μg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

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