

## sIL-6R $\alpha$ , His, Human

**Cat. No.:** Z03213-1

**Size:** 1.0 mg

**Synonyms:** gp80

### Description:

Interleukin-6 Receptor (IL-6R) is a single trans-membrane protein that is the receptor for Interleukin-6 (IL-6). IL-6R forms a hexameric complex upon binding 2 molecules of IL-6 and two molecules of glycoprotein 130 (gp130) which activates intracellular JAK/STAT pathways. Although the normal form of IL-6R is the membrane-bound 80 kDa subunit, a soluble form of IL-6R (sIL-6R) can be generated physiologically by limited proteolysis or alternative splicing. sIL-6R binds to both IL-6 and gp130 generating intracellular signaling. In the immune system, sIL-6R is produced by both naïve and memory CD4 T-cells and strongly augments IL-6 ligand's induction of Th-17 cells.

Recombinant human Soluble IL-6 Receptor Alpha (rhsIL-6R alpha) with an N-terminal His tag produced in *Sf9 insect cells* is a single glycosylated polypeptide chain containing 350 amino acids. A fully biologically active molecule, rhsIL-6R alpha has a molecular mass of 50kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Amino Acid Sequence:

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00001 HHHHHHDDDD KLAPRRCPAQ EVARGVLTSL PGDSVTLTCP
00041 GVEPEDNATV HWVLRKPAAG SHPSRWAGMG RLLLRVSQL
00081 HDSGNYSYR AGRPAGTVHL LVDVPPPEEPQ LSCFRKSPLS
00121 NVVCEWQPRS TPSLTTKAVL LVRKFQNSPA EDFQEPCQYS
00161 QESQKFSCQL AVPEGDSSFY IVSMCVASSV GSKFSKTQTF
00201 QGCGILQPD PANITVTAVA RNPRWLSVTW QDPHSWNSSF
00241 YRLRFELRYR AERSKTFTTW MVKDLQHHCV IHDAWGLRH
00281 VVQLRAQEEF GQGEWSEWSP EAMGTPWTES RSPPAENEVS
00321 TPMQALTTNK DDDNILFRDS ANATSLPVQD
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**Source:** *Sf9 insect cells*

**Species:** Human

**Biological Activity:** ED<sub>50</sub> < 50ng/mL, measured by the cytotoxicity assay using M1 cells in presence of 10 ng/mL of human IL-6, corresponding to a specific activity of > 2×10<sup>4</sup> units/mg.

**Molecular Weight:** 50 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100 µg/mL.

**Purity:** > 95% by SDS-PAGE and HPLC analyses.

**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.

**Storage:** Lyophilized recombinant human Soluble IL-6 Receptor Alpha (rhsIL-6R alpha) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhsIL-6R alpha remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.