

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

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

Catalog Number: BK0357-10 $\mu$ g

Source: SF9 insect cells

Quantity: 10 $\mu$ g

### 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.

### Molecular Weight:

50 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% by SDS-PAGE and HPLC analyses.

### Biological Activity:

ED50 < 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 $\times$ 10<sup>4</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

HHHHHHDDDDKLAPRRCPAQE-  
VARGVLTSLPGDSVTLTCPGVE-  
PEDNATVHWVLRK-  
PAAGSHPSRWAGMGRLLLLRSVQLHDSGNYSY  
RAGRPAGTVHLLVDVPEEPQLSCFRKSPLS-  
NVVCEWGPRSTPSLTTKAVLLVRK-  
FQNSPAEDFQEPCQYSQESQKFSCQLAV-  
PEGDSSFYIVSMCVASSVGSKF-  
SKTQTFQCGILQPDPPANITVTAVARN-  
PRWLSVTWQDPHSWNSSFYRLRFEL-  
RYRAERSKTFTTWMVKDLQHHCVIHDAWS-  
GLRHVVQLRAQEEFGQGEWSEW-  
SPEAMGTPWTESRSPPAENEVSTPMQALTT-  
NKDDDNILFRDSANATSLPVQD

### Endotoxin:

< 0.2 EU/ $\mu$ g, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O at 100  $\mu$ g/mL.

### Storage:

Lyophilized recombinant human Soluble IL-6 Receptor Alpha (rhsIL-6R alpha) remains stable up to 6 months at -80 °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.

### Usage:

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