



# Recombinant Human IL-1 receptor antagonist, soluble

20150227BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>S01-061</b>
<b>Size:</b>	20 µg
<b>Lot. No.:</b>	According to product label

## Scientific Background

<b>Gene-ID (NCBI):</b>	3570
<b>Synonyms:</b>	soluble IL-6 receptor alpha, B cell stimulatory factor-2, CD126

IL-6 mediates its biological effects through the type I IL-6 receptor system that consists of two chains, IL-6R $\alpha$  and gp130. The IL-6R $\alpha$  chain is the binding component specific to IL-6; while the gp130 only transmits signals of IL-6 when bound to IL-6R $\alpha$ . The gp130 also can transmit signals from LIF, OSM, CNTF, IL-11 and CT-1 in conjunction with other receptor subunits. The low-affinity binding site for IL-6 is composed of IL-6R $\alpha$  alone. IL-6R $\alpha$  is expressed in a wide range of cells including T cells, fibroblasts and macrophages. Soluble IL-6R $\alpha$  which consists of only the extracellular domain of the IL-6R $\alpha$  chain, acts as an agonist of IL-6 activity at low concentrations. Recombinant human sIL-6R $\alpha$  is a 37.6 kDa protein consisting of the extracellular domain of the IL-6R $\alpha$  chain (339 amino acid residues).

## Sequence

```
LAPRRCPAQEVARGVLTSLPGDSVTLTCLPGVEPEDNATVHWVLRKPAAGSHP
SRWAGMGRRLLLRSVQLHDSGNYSCYRAGRPAAGTVHLLVDVPPPEPQLSCFR
KSPFLSNVVCWGPSTPSTLTKAVLLVRKFNQNSPAEDFQEPQYSQESQKFS
CQLAVPEGDSSFYIVSMCVASSVGSKFSKTQTFQCGILQPDPPANITVTAV
ARNPRWLSVTWQDPHSWNSSFYRLRFELRYRAERSKFTFTTMMVKDLQHHCVI
HDAWSGLRHVVQLRAQEEFQGEWSEWSPEAMGTPWTESRSPPAENEVSTPM
QALTTNKDDDNILFRDSANATSLPVDQ
```

## Database References

<b>Protein RefSeq:</b>	NP_000556.1.
<b>Uniprot ID:</b>	P08887
<b>mRNA RefSeq:</b>	NM_000565.3

## Product Specifications

<b>Expressed in</b>	HEK 293 cells
<b>Purity</b>	> 98% by SDS-PAGE & HPLC analysis
<b>Endotoxin level</b>	< 0.1 ng /µg of protein (<1EU/µg).
<b>Formulation</b>	lyophilized
<b>Length (aa):</b>	339
<b>MW:</b>	37.2 kDa

**Biological Activity:** The ED50 was determined by its ability to intensify the IL-6 induced growth inhibition of murine M1 cells is ≤ 5.0 ng/ml, in the presence of 20 ng/ml of rhIL-6.



**AVOID REPEATED FREEZE AND THAW CYCLES!**