

# IL-6 R $\alpha$ , Human CellExp™, Human Recombinant

<b>CATALOG #:</b>	7102-10	10 $\mu$ g
	7102-50	50 $\mu$ g
<b>ALTERNATE NAMES:</b>	soluble IL-6 receptor alpha, B cell stimulatory factor-2, CD126	
<b>SOURCE:</b>	HEK293 cells	
<b>PURITY:</b>	$\geq$ 98% by SDS-PAGE gel and HPLC analyses	
<b>MOL. WEIGHT:</b>	~37.6 kDa	
<b>ENDOTOXIN LEVEL:</b>	< 0.1 ng/ $\mu$ g of protein (<1EU/ $\mu$ g).	
<b>FORM:</b>	Lyophilized	
<b>FORMULATION:</b>	Sterile filtered through a 0.2 micron filter. Lyophilized from 1x PBS pH 7.2.	
<b>STORAGE CONDITIONS:</b>	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

**RECONSTITUTION:**

Centrifuge the vial prior to opening. Reconstitute in 1x PBS, pH 7.2 to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

**DESCRIPTION:**

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).

**BIOLOGICAL ACTIVITY:**

Determined by its ability to intensify the IL-6 induced growth inhibition of mouse M1 cells. The expected ED<sub>50</sub> is  $\leq$  5.0 ng/ml, in the presence of 20 ng/ml of rhIL-6.

**AMINO ACID SEQUENCE:**

LAPRRCPAQE VARGVLTSLP GDSVTLTCPG VEPEDNATVH WVLRKPAAGS  
HPSRWAGMGR RLLRSVQLH DSGNYSCYRA GRPAGTVHLL VDVPEEPQL  
SCFRKSPNSN VCEWGPRST PSLTTKAVLL VRKFNQSPAE DFQEPQCYSQ ESQKFSCQLA  
VPEGDSSFYI VSMCVASSVG SKFSKTQTFQ GCGILQPDPP ANITVTAVAR NPRWLSVTWQ  
DPHSWNSSFY RLFELRYRA ERSKTFTTWM VKDLQHHCVI HDAWSGLRHV  
VQLRAQEEFG QGEWSEWSPE AMGTPWTESR SPPAENEVST PMQALTTNKD  
DDNILFRDSA NATSLPVQD

**RELATED PRODUCTS:**

- Human Cell<sup>Exp</sup> Human Recombinant IL-6 (Cat # 6464-10, -50)
- IL-6, human recombinant (Cat # 4143-20, -50, -1000)
- IL-6, murine recombinant (Cat # 4144-10, -50, -1000)
- IL-6, rat recombinant (Cat # 4145-10, -100, -1000)
- IL-6 Antibody (Cat # 5143-200)
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**FOR RESEARCH USE ONLY! Not to be used in humans.**