

## IL-2 Receptor $\alpha$ , Human Recombinant

<b>CATALOG #:</b>	7100-10	10 $\mu$ g
	7100-50	50 $\mu$ g
<b>ALTERNATE NAMES:</b>	soluble IL-2 receptor, TAC-antigen, CD25 antigen	
<b>SOURCE:</b>	(BTI-Tn-5B1-4) Hi-5 Insect Cells	
<b>PURITY:</b>	$\geq$ 98% by SDS-PAGE gel and HPLC analyses	
<b>MOL. WEIGHT:</b>	24.8 kDa (31 kDa on SDSPAGE due to glycosylation)	
<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	
<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:

The IL-2 receptor system consists of three non-covalently linked subunits termed IL-2R $\alpha$ , IL-2R $\beta$ , and IL-2R $\gamma$ . The IL-2R $\alpha$  is a type I transmembrane protein consisting of a 219 amino acid extracellular domain, a 19 amino acid transmembrane domain and a 13 amino acid intracellular domain, which is not involved in the transduction of IL-2 signals. Proteolytic processing of IL-2R $\alpha$  releases the entire extracellular domain of IL-2R $\alpha$  thereby generating a 219 amino acid soluble protein called soluble IL-2R $\alpha$  (sIL-2R $\alpha$ ). The homodimeric form binds IL-2 (KD=10mM) and facilitates IL-2 signaling. The secreted sIL-2R $\alpha$  is expressed on leukemia cells, lymphoma cells, newly activated T and B cells, as well as on approximately 10% of NK cells. Recombinant human sIL-2R $\alpha$  is a 24.8 kDa protein containing 219 amino acid residues consisting of only the extracellular domain of IL-2R $\alpha$ . Due to glycosylation, IL-2R $\alpha$  has an approximate molecular

### BIOLOGICAL ACTIVITY:

Determined by its ability to increase the proliferation effect of IL-2 in mouse CTLL-2 cells. In the presence of 1 ng/ml of recombinant IL-2, the expected ED<sub>50</sub> for this effect is between 0.5-1.5  $\mu$ g/ml.

### AMINO ACID SEQUENCE:

ELCDDDPPEI PHATFKAMAY KEGTMLNCEC KRGFRRIKSG SLYMLCTGNS  
SHSSWDNQCQ CTSSATRNTT KQVTPQPEEQ KERKTTMQS PMQPVDQASL  
PGHCREPPPW ENEATERIYH FVVGQMVYYQ CVQGYRALHR GPAESVCKMT  
HGKTRWTQPQ LICTGEMETS QFPGEEKPQA SPEGRPESET SCLVTTTDFQ  
IQTEMAATME TSIFTTYEQ

### RELATED PRODUCTS:

- Human Cell<sup>exp</sup> Human Recombinant IL-2 (Cat # 6461-10, -50)
- IL-2, human recombinant (Cat # 4131-10, -50, -1000)
- IL-2, murine recombinant (Cat # 4132-20, -100, -1000)
- IL-2, rat recombinant (Cat # 4133-20, -100, -1000)
- IL-2 Antibody (Cat # 5133-100)
- IL-2 Antibody (Cat # 5131-100)

**FOR RESEARCH USE ONLY! Not to be used in humans.**