



Recombinant Human Interleukin-2



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no:	200-010
Size:	50 µg
Lot. No.:	According to product label
Country of origin:	Germany

Scientific Background

Gene:	<i>IL2</i>
Synonyms:	Interleukin-2, T-cell growth factor

IL-2 is a powerful immunoregulatory lymphokine produced by T-cells in response to antigenic or mitogenic stimulation. IL-2/IL-2R signaling is required for T-cell proliferation and other fundamental functions which are essential for the immune response.

IL-2 stimulates growth and differentiation of B-cells, NK cells, lymphokine activated killer cells, monocytes, macrophages and oligodendrocytes.

Recombinant human IL-2 is a 15.5kDa protein, containing 134 amino acid residues including one intrachain disulfide bond.

References

1. Ma, A. *et al.* (2006) *Annu. Rev. Immunol.* 24:657.
2. Gaffen, S.L. and K.D. Liu (2004) *Cytokine* 28:109.
3. Taniguchi, T. *et al.* (1983) *Nature* 302:305.
4. Mosmann, T.R. *et al.* (1987) *J. Immunol.* 138:1813.
5. Liparoto, S.F. *et al.* (2002) *Biochemistry* 41:2543.
6. Wang, X. *et al.* (2005) *Science* 310:1159.
7. Bodnar, A. *et al.* (2008) *Immunol. Lett.* 116:117.
8. Jaleco, S. *et al.* (2003) *J. Immunol.* 171:61.
9. Malek, T.R. (2003) *J. Leukoc. Biol.* 74:961.

Sequence

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APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T F K F Y M  
P K K A T E L K H L Q C L E E E L K P L E E V L N L A Q S K N F H L R P R D L I S N I N V I  
V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F C Q S I I S T L H Y K D P A  
A N K A R K E A E L A A A T A E Q
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Database References

Protein RefSeq:	NP_000577
Uniprot ID:	P60568
mRNA RefSeq:	NM_000586

Product Specifications

Expressed in	E.coli
Purity	> 98% by SDS-PAGE & silver stain
Endotoxin level	< 0.1ng per µg (IEU/µg) of rh IL-2
Buffer	50 mM acetic acid
Stabilizer	None
Formulation	lyophilized
Length (aa):	134
MW:	15.5 kDa
Result by N-terminal sequencing	APTSSSTK and MAPTSSST

Stability: The lyophilized IL-2, though stable at room temperature, is best stored desiccated below 0°C. Reconstituted IL-2 should be stored in working aliquots at -20°C.

Reconstitution: The lyophilized IL-2 should be reconstituted in 50mM acetic acid to a concentration not less than 100µg/ml. This solution can be diluted into other buffered solutions or stored at -20°C for future use.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: The ED₅₀ as determined by the dose-dependent stimulation of proliferation of murine D10G4.1 cells is in the range of 0.1-0.5 ng/ml.



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Handling/Applications

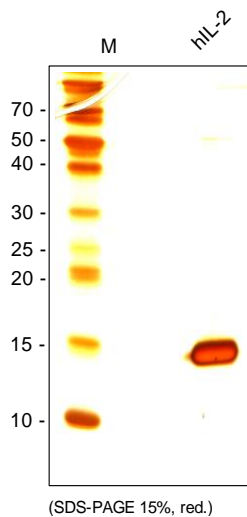


Figure 1. SDS-PAGE analysis of recombinant human IL-2. Sample was loaded in 15% SDS-polyacrylamide gel under reducing conditions and stained with Silver staining.

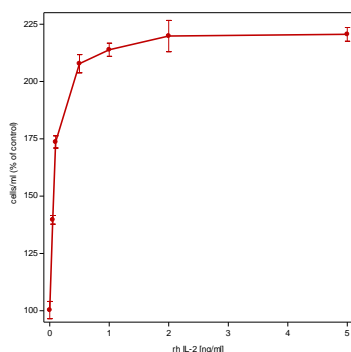


Fig. 2: Dose-dependent stimulation of cell proliferation in D10.G4.1 cells by recombinant human IL-2. Values are the means (\pm SD) of triplicate determinations and expressed as percentage of control