



Recombinant Human Interleukin-2 protein (IL2) (Active)

Product Code	CSB-AP001691HU
Abbreviation	Recombinant Human IL2 protein (Active)
Uniprot No.	P60568
Form	Lyophilized powder
Storage Buffer	0.2 µm filtered 20 mM PB, pH 3.5 ,lyophilized
Product Type	Interleukin
Immunogen Species	Homo sapiens (Human)
Biological Activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine CTLL-2 cells is less than 0.1 ng/ml, corresponding to a specific activity of $>1.0 \times 10^7$ IU/mg.
Purity	>97% as determined by SDS-PAGE.
Sequence	APTSSSTKKTQLQLEHLLLDLQMLNGINNYKNPKLTRMLTFKFYMPKKATELK HLQCLEEELKPLEEVLNLAQSKNFHLRPRDLISNINVIVLELKGSETTFMCEYAD ETATIVEFLNRWITFCQSIISTLT
Research Area	Immunology
Source	E.coli
Target Names	IL2
Expression Region	21-153aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag-Free
Mol. Weight	15.4 kDa
Protein Length	Full Length of Mature Protein
PubMed ID	6312994; 6403867; 6306584; 6324170; 6330695; 6608729; 7722480; 8824916; 15489334; 3491296; 3264184; 6333684; 2793860; 3500515; 1631562; 1510960; 7529123; 16293754; 16477002

Image



Description

The Recombinant Human Interleukin-2/IL2 was prepared by the expression of a DNA sequence coding for 21-153aa of human IL2 in E.coli. The full-length of mature protein reached up to 97% in purity determined by SDS-PAGE and HPLC analyses. It was also verified to be fully biologically active through its effect on a cell proliferation assay using murine CTLL-2 cells (ED₅₀<0.1 ng/ml, specific activity >1.0x10⁷ IU/mg). The endotoxin of this IL2 is less than 1.0 EU/μg as determined by the LAL method. Proteins in-stock are offered now. The IL2 proteins are tag-free, but CUSABIO offers custom service for you to meet the need of specific tag(s). This recombinant IL2 protein may be used to produce anti-IL2 antibodies or in the immunology studies.

IL2 is a small α-helical cytokine that regulates immune cell homeostasis through IL2-IL2R signaling. It mediates activation-induced cell death (AICD) and consistently activates T-regulatory (Treg) cells. As a B-cell growth factor, IL2 stimulates antibody synthesis and facilitates the proliferation and differentiation of NK cells to increase their cytolytic functions. IL2 is also essential for the Treg cells' development and survival, which ensures Treg cells exert an important role in the control of the immune response and effectively participate in the pathogenesis of several pathological conditions, such as cancer and metabolic, infectious, autoimmune, and inflammatory diseases.

Endotoxin

Less than 1.0 EU/μg as determined by LAL method.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.