**Proteins** 



## **Product** Data Sheet

## IL-2 Protein, Mouse (149a.a)

Cat. No.: HY-P70646

Synonyms: aldesleukin; interleukin 2; interleukin-2; IL-2; IL2; T-cell growth facter; T cell growth factor; TCGF

Species: Source: E. coli

P04351 (A21-Q169) Accession:

Gene ID: 16183

Molecular Weight: Approximately 17.0 kDa

## **PROPERTIES**

**AA Sequence** 

APTSSSTSSS TAEAQQQQQQ QQQQQHLEQ LLMDLQELLS RMENYRNLKL PRMLTFKFYL PKQATELKDL QCLEDELGPL RHVLDLTQSK SFQLEDAENF ISNIRVTVVK LKGSDNTFEC

QFDDESATVV DFLRRWIAFC QSIISTSPQ

The cell proliferation assay using CTLL-2 mouse cytotoxic T cells has a specific activity of  $\geq 1 \times 10^7$  IU/mg. **Biological Activity** 

Lyophilized powder. **Appearance** 

**Formulation** Lyophilized from a 0.2 μm filtered solution of 20 mM Sodium Citrate, 0.2% Tween 80, pH 3.0.

**Endotoxin Level** <1 EU/µg, determined by LAL method.

Reconsititution It is not recommended to reconstitute to a concentration less than 100  $\mu g/mL$  in ddH<sub>2</sub>O.

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is

recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping** Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION**

Background

IL-2 is a receptor cytokine produced by activated CD4-positive helper T cells and plays its role by activating JAK/STAT, inosine phosphate 3-kinase /PI3K and mitogen-activated protein kinase /MAPK. IL-2 binds to receptor complexes consisting of high affinity trimers IL-2R (IL2RA/CD25, IL2RB/CD122 and IL2RG/CD132) or low affinity dimers IL-2R (IL2RB and IL2RG). IL-2 can increase the cytolytic activity of NK cells. Promote strong proliferation of activated B cells and immunoglobulin production. IL-2 is involved in differentiation and homeostasis of effector T cell subsets, including Th1, Th2, Th17, and memory CD8-positive T cells. IL-2 synthesis is strictly regulated by TCR and CD28 signaling at the mRNA level. It mediates the activation induced cell death (AICD) process. IL-2 can be used in the research of cancer immunotherapy[1][2][3][4][5][6].

REFERENCES
[1]. Abul K Abbas, et al. Revisiting IL-2: Biology and therapeutic prospects. Sci Immunol. 2018 Jul 6;3(25):eaat1482.
Caution: Product has not been fully validated for medical applications. For research use only.
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