

Recombinant Mouse IL-2

Information

Gene ID	16183
Accession #	P04351
Alternate Names	T-cell growth factor, TCGF, Aldesleukin
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 17.2 kDa, a single non-glycosylated polypeptide chain containing 149 amino acids.
AA Sequence	APTSSSTSSS TAEAQQQQQQ QQQQQQHLEQ LLMDLQELLS RMENYRNLKL PRMLTFKFYL PKQATELKDL QCLEDELGPL RHVLDLTQSK SFQLEDAENF ISNIRVTVVK LKGS DNTFEC QFDD ESATVV DFLRRWIAFC QSIISTSPQ
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine CTLL-2 cells is less than 0.2 ng/ml, corresponding to a specific activity of > 5.0 × 10 ⁶ IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5 µg	100 µg	500 µg
Recombinant Mouse IL-2	5 µg	100 µg	500 µg

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Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuIL-2 as determined by LAL method.

Description

IL-2 is a powerful immunoregulatory lymphokine produced by T-cells in response to antigenic or mitogenic stimulation. It is expressed by CD4+ and CD8+ T cells, $\gamma\delta$ T cells, B cells, dendritic cells, and eosinophils. IL-2/IL-2R signaling is required for T-cell proliferation and other fundamental functions which are essential for the immune response. The receptor for IL2 consists of three subunits (55 kDa IL2R α , 75 kDa IL2R β , 64 kDa common gamma chain γc /IL2R γ) that are present on the cell surface in varying preformed complexes; Mature mouse IL2 shares 56 % and 73 % amino acid sequence identity with human and rat IL2 respectively. Mouse and human IL2 exhibit cross-species activity. Mouse IL2 has a specific N-terminal region that contains a poly glutamine (contain 12 glutamines) stretch.

Reference

1. Ma, A., R. Koka, and P. Burkett. 2006. Annu Rev Immunol, 24: 657-79.
2. Taniguchi, T., H. Matsui, T. Fujita, et al. 1983. Nature, 302: 305-10.
3. Liparoto, S.F., D.G. Myszka, Z. Wu, et al. 2002. Biochemistry, 41: 2543-51.
4. Bodnar, A., E. Nizsaloczki, G. Mocsar, et al. 2008. Immunol Lett, 116: 117-25.
5. Mosmann, T.R., T. Yokota, R. Kastelein, et al. 1987. J Immunol, 138: 1813-6.
6. Matesanz, F., A. Alcina, and A. Pellicer. 1993. Immunogenetics, 38: 300-3.

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