

Recombinant Human Interleukin-2 GMP

Information

Gene ID	3558
Accession #	P60568
Alternate Names	IL2, T-cell Growth Factor, TCGF, Aldesleukin
Source	Escherichia coli.
M.Wt	Approximately 15.4 kDa, a single non-glycosylated polypeptide chain containing 133 amino acids.
AA Sequence	APTSSSTKKT QLQLEHLLLD LQMILNGINN YKNPKLTRML TFKFYMPKKA TELKHLQCLE EELKPLEEVL NLAQSKNFHL RPRDLISNIN VIVLELKGSE TTFMCEYADE TATIVEFLNR WITFCQSIIS TLT
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - A minimum of 12 months when stored at ≤ -20 °C as supplied Refer to lot specific COA for the Use by Date - 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 μ m filtered concentrated solution in 20 mM PB, pH 3.5.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled HO 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. Do not reconstitute in cell culture media directly.
Biological Activity	Fully biologically active when compared to standard. Measured in a cell proliferation assay using CTLL-2 cells. The specific activity of Recombinant human IL-2 is $> 1.0 \times 10$ IU/mg, which is calibrated against human IL-2 WHO International Standard (NIBSC code: 86/500).
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 μ g	100 μ g
Recombinant Human Interleukin-2 GMP	5 μ g	100 μ g

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- A minimum of 12 months when stored at ≤ -20 °C as supplied

Refer to lot specific COA for the Use by Date

- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 98 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.01 EU/ μ g of rHuIL-2 GMP 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, γ δ 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 IL-2 consists of three subunits (55 kDa IL2R α , 75 kDa IL2R β , 64 kDa common gamma chain γ c/IL2R γ) that are present on the cell surface in varying preformed complexes. Mature human IL-2 shares 56 % and 66 % amino acid sequence identity with mouse and rat IL-2, respectively. Human and mouse IL-2 exhibit cross-species activity.

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.



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