

Recombinant Human Interleukin-3 GMP

Information

Gene ID	
Accession #	
Alternate Names	
Source	Escherichia coli.
M.Wt	Approximately 15.0 kDa, a single non-glycosylated polypeptide chain containing 133 amino acids.
AA Sequence	APMTQTTSLK TSWVNCSNMI DEIITHLKQP PLPLLDENN NGEDQDILME NNLRPNLEA FNRAVKSLQN ASAIESILKN LLPCLPLATA APTRHPIHK DGDWNEFRRK LTFYKLTLEN AQAQQTTLSL AIF
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 $\leq -20^{\circ}\text{C}$ 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 $0.2\ \mu\text{m}$ filtered concentrated solution in PBS, pH 7.4, with 0.02 % Tween-20.
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 $\leq -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED as determined by a cell proliferation assay using human TF-1 cells is less than 0.1 ng/ml, corresponding to a specific activity of $> 1.0 \times 10\ \text{IU/mg}$.
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	
Recombinant Human Interleukin-3 GMP	5 μg	100 μg	

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Quality Control

Purity	> 98 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.01 EU/ μg of rHuIL-3 GMP as determined by LAL method.

Description

Interleukin-3 (IL-3) is an interleukin, a type of biological signal (cytokine) which is encoded by the IL-3 gene located on chromosome 5 and produced primarily by activated T cells beside human thymic epithelial cells, activated murine mast cells, murine keratinocytes and neurons/astrocytes. The protein acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. The human IL-3 reported to be a monomer, as it is known, contains 133 amino acids residues which is a single non-glycosylated polypeptide. Specifically, human and murine IL-3 share low homology and it does not show activity on murine cells.

Reference

1. Yang YC, Ciarletta AB, Temple PA, et al. 1986. Cell. 47:3-10
2. Otsuka T, Miyajima A, Brown N, et al. 1988. J Immunol. 140:2288-95
3. Dorssers L, Burger H, Bot F, et al. 1987. Gene. 55:115-24
4. Feng Y, Klein BK, McWherter CA. 1996. J Mol Biol. 259:524-41.

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