

Interleukin-3, rat recombinant (rrlL-3)

Catalog No: 87370 Lot No: XXXXX Source: E. coli

Synonyms: MCGF (Mast cell growth factor), Multi-CSF, HCGF, P-cell stimulation factor, IL-3, MGC79398, MGC79399

Background

Interleukin-3 is a pleiotropic cytokine produced primarily by activated T cells. IL-3 is thought to function via specific cell surface receptors to stimulate the proliferation, differentiation and survival of haematopoietic cell lines. IL-3 has also been shown to affect the functional activity of a variety of other cell types including mast cells, eosinophils, megakaryocytes and basophils.

Description

Interleukin-3 rat recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 144 amino acids and having a molecular mass of 16.3 kDa. IL-3 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-3 in sterile 18 M Ω -cm H $_2$ O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-3, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-3 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MISDRGSDAH HLLRTLDCRT IALEILVKLP YPQVSGLNNS DDKANLRNST LRRVNLDEFL KSQEEFDSQD TTDIKSKLQK LKCCIPAAAS DSVLPGVYNK DLDDFKKKLR FYVIHLKDLQ PVSVSRPPQP TSSSDNFRPM TVEC

Activity

The ED50 as determined by the dose dependent stimulation of the proliferation of thymidine uptake by murine MC-9 cells is < 10 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^5 \text{ u/mg}$.

Usage

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