



Interleukin-22, mouse recombinant (rnIL-22)

Catalog No: 97087
Lot No: XXXXX
Source: *E. coli*
Synonyms: IL-TIF, TIFa, IL-10-related T-cell-derived-inducible factor, IL-22, ILTIF, IL-D110, zcyto18, MGC79382, MGC79384, TIFIL-23

Background

Interleukin-22 (IL-22), also known as IL-10-related T cell-derived inducible factor (IL-TIF) was initially identified as a gene induced by IL-9 in mouse T cells and mast cells. Mouse IL-22 cDNA encodes a 179 amino acid residue protein with a putative 33 amino acids signal peptide that is cleaved to generate a 147 aa mature protein that shares approximately 79% and 22% aa sequence identity with human IL-22 and IL-10, respectively. IL-22 has been shown to activate STAT-1 and STAT-3 in several hepatoma cell lines and upregulate the production of acute phase proteins. IL-22 is produced by normal mouse T cells upon Con A activation. Mouse IL-22 expression is also induced in various organs upon lipopolysaccharide injection, suggesting that IL-22 may be involved in inflammatory responses. The functional IL-22 receptor complex consists of two receptor subunits, IL-22R (previously an orphan receptor named CRF2-9) and IL-10R β (previously known as CRF2-4), belonging to the class II cytokine receptor family.

Description

Interleukin-22 mouse recombinant produced in *E. coli* is a single, non-glycosylated homodimeric polypeptide chain containing 147 amino acids and having a molecular mass of 16.7 kDa. Murine IL-22 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from 1X PBS.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-22 in sterile 18 M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-22, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL22 should be stored at 4°C between 2-7 days and for future use below -18°C. 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

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Leu-Pro-Val-Asn.

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Activity

The ED50 as determined by its ability to induce IL-10 secretion in Colo205 cells is less than 0.5 ng/ml, corresponding to a specific activity of 2,000,000 IU/mg.

Usage

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