



## Interleukin-22 Antagonist (E117A), mouse recombinant (rmIL-22A)

**Catalog No:** 97501  
**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

IL-22 is a member of the IL-10 family of regulatory cytokines. Members of this family share partial homology in their amino acid sequences, but they are dissimilar in their biological functions. Produced by T lymphocytes, IL-22 inhibits IL-4 production by Th2 cells, and induces acute phase reactants in the liver and pancreas. IL-22 signals through a receptor system consisting of IL-10R-beta/CRF2-4 and IL-22R, both of which are members of the class II cytokine-receptor family.

### Description

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

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

IL-22 Antagonist mouse is lyophilized from a concentrated (1 mg/ml) solution in water containing NaHCO<sub>3</sub>.

### Solubility

It is recommended to reconstitute the lyophilized Interleukin-22 in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized Interleukin-22 Antagonist, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL22 Antagonist 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 98.0% as determined by (a) Gel filtration chromatography under non-denaturing conditions, (b) Analysis by reducing and non-reducing SDS-PAGE silver stained gel.

### Amino Acid Sequence

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

### Activity

IL-22 E117A mutant is capable of full inhibition of STAT3 phosphorylation induced by mouse interleukin 22 in HepG cells. Its affinity toward immobilized mIL-22 receptor α1 extracellular domain (mIL-22 Ra1-ECD) or IL-22 binding protein is similar to the non-mutated mouse interleukin 22. Mouse IL-22 antagonist (E117A) has very low agonistic activity in this bioassay.

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### Usage

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