Interleukin-22 Murine E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Murine
Other names: IL-22, ILD110, ILTIF, Interleukin 10 related T cell derived inducible factor, TIFIL23, TIFa, zcyto18

Cat. No.:

RBG20022002	(2 µg)
RBG20022010	(10 µg)
RBG20022100	(100 µg)

Description

IL-22 is a member of the IL-10 family of regulatory cytokines, which includes IL-10, IL-19, IL-20, IL-22, IL-24 and IL-26. 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-10Rbeta/CRF2-4 and IL-22R, both of which are members of the class II cytokine-receptor family. Recombinant Murine IL-22 is a 33.4 kDa, non-disulfide-linked, homodimeric protein consisting of two 147 amino acid polypeptide chains.

Introduction to the Molecule

Interleukin-22 is a new cytokine that regulates the production of acute phase proteins of the immunological response. It is produced by activated Th1 and NK cells acting primarily on epithelial cells and is involved in inflammatory responses. IL-22 plays a protective role in T cell-mediated hepatitis induced by Concanavalin A, acting as a survival factor for hepatocytes. IL-22 is present in high quantities in the blood of Crohn's disease patients in contrast to IFN-gamma and IL-17 levels.

Research topic

Animal studies, Cytokines and chemokines and related molecules

Amino Acid Sequence

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MLPVNTRCKL EVSNFQQPYI VNRTFMLAKE ASLADNNTDV RLIGEKLFRG VSAKDQCYLM KQVLNFTLED VLLPQSDRFQ
PYMQEVVPFL TKLSNQLSSC HISGDDQNIQ KNVRRLKETV KKLGESGEIK AIGELDLLFM SLRNACV
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Source

E. coli

Purity

98%

Biological Activity

Assay#1: Determined by its ability to activate STAT following receptor ligand interaction. Assay#2: Measured by its ability to induce IL-10 secretion in COLO 205 (human colon carcinoma cells). The expected ED_{50} for this effect is 1.0-2.0 ng/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.5-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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