

I-TAC (CXCL11), human recombinant (rHul-TAC)

Catalog No: 94872 Lot No: XXXXX Source: *E. coli*

Synonyms: Small inducible cytokine B11, CXCL11, Interferon-inducible T-cell alpha chemoattractant, I-TAC,

Interferon-gamma-inducible protein 9, IP-9, H174, Beta-R1, chemokine (C-X-C motif) ligand 11, IP9, b-R1,

SCYB11, SCYB9B, MGC102770

Background

Chemokine (C-X-C motif) ligand 11 (CXCL11) is a small cytokine belonging to the CXC chemokinen family that is also called Interferon-inducible T-cell alpha chemoattractant (I-TAC) and Interferon-gamma-inducible protein 9 (IP-9). I-TAC is highly expressed in peripheral blood leukocytes, pancreas and liver, with moderate levels in thymus, spleen and lung and low expression levels were in small intestine, placenta and prostate. Gene expression of CXCL11 is strongly induced by IFN-g and IFN-b, and weakly induced by IFN-a. The I-TAC chemokine elicits its effects on its target cells by interacting with the cell surface chemokine receptor CXCR3, with a higher affinity than do the other ligands for this receptor, CXCL9 and CXCL10. I-TAC is chemotactic for activated T cells. The CXCL11 gene is located on human chromosome 4 along with many other members of the CXC chemokine family.

Description

I-TAC human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 73 amino acids and having a molecular mass of 8300 Dalton. I-TAC is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated (0.5 mg/ml) solution in 20 mM PBS, pH 7.4, 100 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized I-TAC 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 I-TAC, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution I-TAC 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

FPMFKRGRCL CIGPGVKSVK VADIEKASIM YPSNNCDKIE VIITLKENKG QRCLNPKSKQ ARLIIKKVER KN

Activity

Determined by its ability to chemoattract human IL-2 activated T-lymphocytes using a concentration range of 0.1 - 10.0 ng/ml.





Usage

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