

Product Information

INTERFERON-INDUCIBLE T CELL α CHEMOATTRACTANT (I-TAC, SCYB9B, H174, β -R1)

Human, Recombinant

Expressed in *E. coli*

Product Number **I5528**

Product Description

Interferon-inducible T cell α chemoattractant (I-TAC, SCYB9B, H174, β -R1) is a non-ELR (EBI1 ligand receptor) member of the CXC chemokine family. I-TAC cDNA encodes a 94 amino acid residue precursor protein with a 21 amino acid residue putative signal sequence, which is cleaved to form the mature 73 amino acid residue protein. I-TAC shares 36% and 37% amino acid sequence homology with IP-10 and MIG, respectively. IP-10 and MIG are two other known human non-ELR CXC chemokines.

Interferon-inducible T cell α chemoattractant (I-TAC, SCYB9B, H174, β -R1) is expressed at low levels in normal tissues including thymus, spleen and pancreas. I-TAC is regulated by interferon (IFN) and has potent chemoattractant activity for IL-2 activated T cells and transfected cell lines expressing CXCR3, but not for freshly isolated unstimulated T cells, neutrophils or monocytes.¹ The expression of I-TAC is up regulated in IFN- γ and IL-2 stimulated astrocytes². Moderate increase in expression is also seen in stimulated monocytes.² β -R1/I-TAC is selectively induced by interferon (IFN)- β and its expression requires IFN-stimulated gene factor 3³ and an accessory component, catalytically active TYK2.⁴ I-TAC is also expressed by IFN-gamma- treated bronchial epithelial cells⁵, endothelial cells⁶, keratinocytes⁷ and neutrophils.⁸

Reagents

A human recombinant form of I-TAC is expressed in *E. coli*. The cDNA sequence encodes the mature human I-TAC protein sequence FPMFKRGRCLCIG-PGVKAVKVADIEKASIMYPSNNCDKIEVIITLKENKGG RCLNPKSKQARLIKKVERKNF.¹

Molecular Mass: Human recombinant I-TAC (mature 73 amino acid residue) has a predicted molecular mass of approximately 8.3 kDa.

Purity: >97% as determined by SDS-PAGE, visualized by silver stain

Package size: 25 μ g

Formulation: Lyophilized from a 0.2 μ m filtered solution in 30% acetonitrile, 0.1% TFA containing 1.25 mg of bovine serum albumin

Endotoxin: < 0.1ng/ μ g of I-TAC

Preparation Instructions

Reconstitute the contents of the vial using sterile phosphate-buffered saline (PBS) containing at least 0.1% human serum albumin or bovine serum albumin. Prepare a stock solution of no less than 25 μ g/ml.

Storage/Stability

Store at -20°C . Upon reconstitution, store at 2° - 8°C for one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended.

Product Profile

Interferon-inducible T cell α chemoattractant (I-TAC, SCYB9B, H174, β -R1) is measured by its ability to induce chemotaxis in interleukin-2 (IL-2) cultured human lymphocytes. The ED₅₀ for this effect is typically 10-20 ng/ml. The ED₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

References

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