

Active Human CXCL10

Cat. No. CXCL10-105H Lot. No. (See product label)

SPECIFICATION

Product Overview It is a synthetic Protein

Species Human

Description

IP-10 was originally identified as an IFN-g-inducible gene in monocytes, fibroblasts and endothelial cells. It has since been shown that IP-10 mRNA is also induced by LPS, IL-1b, TNF-a, IL-12 and viruses. Additional cell types that have been shown to express IP-10 include activated T-lymphocytes, splenocytes, keratinocytes, osteoblasts, astrocytes and smooth muscle cells. IP-10 is also expressed in psoriatic and lepromatous lesions of skin. The mouse homologue of human IP-10, Crg-2, has been cloned and shown to share approximately 67% amino acid sequence identity with human IP-10. Human IP-10 cDNA encodes a 98 amino acid (aa) residue precursor protein with a 21 aa residue signal peptide that is cleaved to form the 77 aa residue secreted protein. The amino acid sequence of IP-10 identified the protein as a member of the chemokine a family that lacks the ELR domain. IP-10 has been shown to be a chemoattractant for activated T-lymphocytes. Recently, IP-10 has been reported to be a potent inhibitor of angiogenesis and to display a potent thymus-dependent antitumor effect. A chemokine receptor specific for IP-10 and Mig has been cloned and shown to be highly expressed in IL-2-activated T-lymphocytes.

Form Lyophilized

Bio-activity The activity of this protein has been tested by its ability to chemoattract T-lymphocytes in the presense of IL-2 for 8-10 days or by mouse BaF/3 cells

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transfected with hCXCR3.ED50=1-15 ng/ml and 0.1-0.5 µg/ml, respectively.

Applications

Activity Assay

Storage

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

Reconstitution

Recommended reconstitution in sterile phosphate buffered saline which contains at least 0.1% human or bovine serum albumin to prepare a stocksolution of no less than 20 µg/ml and vortex thoroughly.

GENE INFORMATION

Gene Name

CXCL10 chemokine (C-X-C motif) ligand 10 [Homo sapiens]

Official Symbol

CXCL10

Synonyms

CXCL10; chemokine (C-X-C motif) ligand 10; INP10, SCYB10, small inducible cytokine subfamily B (Cys X Cys), member 10; C-X-C motif chemokine 10; C7; crg 2; gIP 10; IFI10; IP 10; mob 1; gamma IP10; gamma-IP10; small-inducible cytokine B10; interferon-inducible cytokine IP-10; 10 kDa interferon gamma-induced protein; protein 10 from interferon (gamma)-induced cell line; small inducible cytokine subfamily B (Cys-X-Cys), member 10; INP10; IP-10; crg-2; mob-1; SCYB10; gIP-10;

Gene ID

3627

mRNA Refseq

NM_001565

Protein Refseq

NP_001556

MIM

147310

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UniProt ID	P02778
Chromosome Location	4q21
Pathway	CXCR3-mediated signaling events, organism-specific biosystem; Chemokine receptors bind chemokines, organism-specific biosystem; Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling pathway, conserved biosystem; Class A/1 (Rhodopsin-like receptors), organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem;
Function	cAMP-dependent protein kinase regulator activity; chemokine activity; receptor binding;

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