

Recombinant Mouse Chemokine (C-X-C Motif) Ligand 10

Cat. No. Cxcl10-39M Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Mouse IP-10 produced in *E. Coli* is a single, non-glycosylated, polypeptide chain containing 77 amino acids and having a molecular mass of 8701 Dalton. The IP-10 is purified by proprietary chromatographic techniques.

Species Mouse

Source E.coli

Description Chemokine (C-X-C motif) ligand 10 (CXCL10) is a small cytokine belonging to the CXC chemokine family that is also known as 10 kDa interferon-gamma-induced protein (γ -IP10 or IP-10). CXCL10 is secreted by several cell types in response to IFN- γ . These cell types include monocytes, endothelial cells and fibroblasts. CXCL10 has been attributed to several roles, such as chemoattraction for monocytes and T cells, promotion of T cell adhesion to endothelial cells, antitumor activity, and inhibition of bone marrow colony formation and angiogenesis. The gene for CXCL10 is located on human chromosome 4 in a cluster among several other CXC chemokines. This chemokine elicits its effects by binding to the cell surface chemokine receptor CXCR3. The three-dimensional crystal structure of this chemokine has been determined under 3 different conditions to a resolution of up to 1.92Å.

Amino Acid Sequence The sequence of the first five N-terminal amino acids was determined and was found to be Ile-Pro-Leu-Ala-Arg.

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Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 97.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	The protein was lyophilized with no additives.
Solubility	It is recommended to reconstitute the lyophilized IP-10 in sterile 18MΩ-cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Biological Activity	The Biological activity is calculated by its ability to chemoattract IL-2 activated T cells at 0.1-10 ng/ml.
Protein content	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.02 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of IP-10 as a Reference Standard.
Storage	Lyophilized IP-10 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CXCL10 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.

GENE INFORMATION

Gene Name	Cxcl10 chemokine (C-X-C motif) ligand 10 [<i>Mus musculus</i>]
Synonyms	Cxcl10; chemokine (C-X-C motif) ligand 10; interferon activated gene 10; small inducible cytokine B subfamily (Cys-X-Cys), member 10; C7; IP10; CRG-2; INP10; Ifi10; mob-1; Scyb10; gIP-10

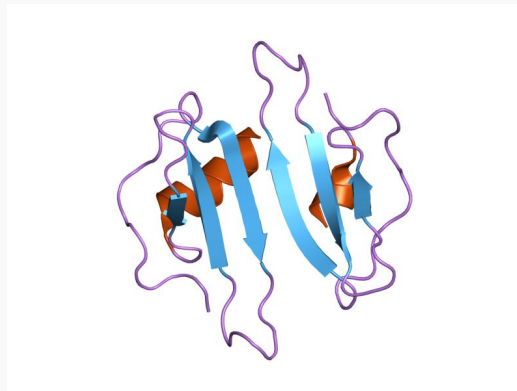
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Gene ID	15945
mRNA Refseq	NM_021274
Protein Refseq	NP_067249
UniProt ID	P17515
Chromosome Location	5 E2; 5 53.0 cM
Pathway	Chemokine signaling pathway; Cytokine-cytokine receptor interaction; RIG-I-like receptor signaling pathway; Toll-like receptor signaling pathway
Function	chemokine activity; cytokine activity

PDB rendering based on 1o7z.



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