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Certificate of Analysis and Data Sheet Recombinant Mouse IP-10 (CXCL10)

Catalog No.
228-10971

Source
Escherichia Coli.

Synonyms

Small inducible cytokine B10, CXCL10, 10 kDa interferon-gamma-induced protein, Gamma-IP10, IP-10, chemokine (C-X-C motif) ligand 10, C7, IFI10, INP10, crg-2, mob-1, SCYB10, gIP-10.

Introduction:

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 (?-IP10 or IP-10). CXCL10 is secreted by several cell types in response to IFN-?. 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.

Description:

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

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The CXCL10 protein was lyophilized with no additives.

Solubility

It is recommended to reconstitute the lyophilized IP-10 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Purity

Greater than 97.0% as determined by
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Stability

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.

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**.

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.

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