

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human IP-10 / CXCL10

Catalog No.	Source:
228-10970	E. 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 1.92A.

Description

IP-10 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 77 amino acids and having a molecular mass of 8516 Dalton. The IP-10 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2µm filtered concentrated (0.5mg/ml) solution in 20mM PB, pH 7.4, 50mM NaCl.

Solubility

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



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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.

Purity

Greater than 97.0% as determined by both

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Val-Pro-Leu-Ser-Arg.

Biological Activity

Determined by its ability to chemoattract human T-Lymphocytes using a concentration range of 10.0-100.0 ng/ml.