



## IP-10 (CXCL10), human recombinant (rHuIP-10)

**Catalog No:** 94868  
**Lot No:** XXXXX  
**Source:** *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

### Background

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 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. IP-10 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

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

### Solubility

It is recommended to reconstitute the lyophilized IP-10 in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### 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 (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.

### Activity

Determined by its ability to chemoattract human T-Lymphocytes using a concentration range of 10 - 100 ng/ml corresponding to a specific activity of 10,000 - 100,000 IU/mg.

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### Usage

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