

Product Data Sheet

Cat # RP-1032

Recombinant Human IP-10 (CXCL10)

**Size:** 5 ug

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 ( $\gamma$ -IP10 or IP-10). CXCL10 is secreted by several cell types in response to IFN- $\gamma$ . These cell types include monocytes, endothelial cells and fibroblasts. CXCL10 has been attributed to several roles, such as chemo attraction for monocytes and T cells, promotion of T cell adhesion to endothelial cells, anti tumor activity, and inhibition of bone marrow colony formation and angiogenesis. The gene for CXCL10 is located on human chromosome 4in 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.

**Source:** *Escherichia Coli*. 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. The CXCL10 protein was lyophilized with no additives.

**Applications and Suggested Dilutions:** Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. It is recommended to reconstitute the lyophilized IP-10 in sterile 18M $\Omega$ -cm H<sub>2</sub>O not less than 100 $\mu$ g/ml, which can then be further diluted to other aqueous solutions. Users must optimize the appropriate concentration and conditions for each assay.

**Storage and 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). If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.  
**Please prevent freeze-thaw cycles.**

**Biological Activity:** ED<sub>50</sub> range=5.0-20 ng/mL, determined by the dose dependent chemotaxis of human lymphocytes cultured in the presence of IL-2

**Usage:**

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals

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