

CXCL10
Catalog # PVGS1488

Specification

CXCL10 - Product Information

Primary Accession [P48973](#)

Species
Rat

Sequence

IPLARTVRCT CIDFHEQPLR PRAIGKLEII PASLSCPHVE IIATMKKNNE KRCLNPESEA IKSLLKAVSQ
RRSKRAP

Purity

> 98% as analyzed by SDS-PAGE.

Endotoxin Level

< 0.2 EU/ µg, determined by LAL method.

Formulation

**Lyophilized after extensive dialysis against
PBS.**

Reconstitution

Reconstituted in ddH₂O or PBS at 100 µg/ml.

CXCL10 - Additional Information

Gene ID 245920

Other Names

C-X-C motif chemokine 10, 10 kDa interferon gamma-induced protein, Gamma-IP10, IP-10, Interferon-inducible protein 10, Protein Mob-1, Small-inducible cytokine B10, Cxcl10, Inp10, Mob1, Scyb10

Target Background

C-X-C motif chemokine 10 (CXCL10) also known as interferon gamma-induced protein 10 (IP-10) or small-inducible cytokine B10, is originally identified as an IFN-γ-inducible gene in monocytes, fibroblasts and endothelial cells. It has since been shown that IP-10 mRNA is also induced by LPS, IL-1β, TNF-α, IL-12 and viruses. Additional cell types that have been shown to express IP-10 include activated T-lymphocytes, splenocytes, keratinocytes, osteoblasts, astrocytes, and smooth muscle cells. IP-10 is also expressed in psoriatic and lepromatous lesions of the skin. Recombinant rat IP-10/CRG-2/CXCL10 produced in HEK 293 cells is a polypeptide chain containing 77 amino acids. A fully biologically active molecule, rr IP-10/CRG-2/CXCL10 has a molecular mass of 8.7 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at .

CXCL10 - Protein Information

Name Cxcl10

Synonyms Inp10, Mob1, Scyb10

Function

Pro-inflammatory cytokine that is involved in a wide variety of processes such as chemotaxis, differentiation, and activation of peripheral immune cells, regulation of cell growth, apoptosis and modulation of angiostatic effects (By similarity). Plays thereby an important role during viral infections by stimulating the activation and migration of immune cells to the infected sites (By similarity). Mechanistically, binding of CXCL10 to the CXCR3 receptor activates G protein-mediated signaling and results in downstream activation of phospholipase C-dependent pathway, an increase in intracellular calcium production and actin reorganization. In turn, recruitment of activated Th1 lymphocytes occurs at sites of inflammation (By similarity). Activation of the CXCL10/CXCR3 axis also plays an important role in neurons in response to brain injury for activating microglia, the resident macrophage population of the central nervous system, and directing them to the lesion site. This recruitment is an essential element for neuronal reorganization (By similarity) (PubMed:30257241, PubMed:30448292).

Cellular Location

Secreted {ECO:0000250|UniProtKB:P02778}.

Tissue Location

In the central nervous system, CXCL10 is predominantly localized to activated neurons (PubMed:30448292) Expressed in both microglia and astrocytes (PubMed:30257241)

CXCL10 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CXCL10 - Images