IP-10/CRG-2/CXCL10 Protein, Human (P. pastoris, His)

Cat. No.:	HY-P700533
Synonyms:	CXCL10; SCYB10C-X-C motif chemokine 10; 10 kDa interferon gamma-induced protein; Gamma-IP10; IP-10; Small-inducible cytokine B10
Species:	Human
Source:	P. pastoris
Accession:	P02778 (V22-P98)
Gene ID:	3627
Molecular Weight:	10.6 kDa

PROPERTIES

AA Sequence	V P L S R T V R C T C I S I S N Q P V N P R S L E K L E I I P A S Q F C P R V E I I A T M K K K G E K R C L N P E S K A I K N L L K A V S K E R S K R S P
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	IP-10 (CXCL10), a pro-inflammatory cytokine, is implicated in a diverse array of biological processes, including chemotaxis, differentiation, and activation of peripheral immune cells, regulation of cell growth, apoptosis, and modulation of angiostatic effects. Notably, during viral infections, IP-10 plays a pivotal role by stimulating the activation and migration of immune cells to the infected sites. Mechanistically, the binding of CXCL10 to the CXCR3 receptor activates G protein-mediated signaling, leading to downstream activation of the phospholipase C-dependent pathway, an increase in intracellular calcium production, and actin reorganization. This cascade results in the recruitment of activated Th1 lymphocytes to sites of inflammation. The CXCL10/CXCR3 axis also holds significance in neurons, responding to brain injury by activating microglia—the resident macrophage population of the central nervous system—and guiding them to the lesion site, a crucial element for neuronal reorganization. IP-10 exists in monomeric, dimeric, and tetrameric forms and interacts with CXCR3, specifically through its N-terminus.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA