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CXCL10

Catalog # PVGS1661

Product Information

Primary Accession	P17515
Species	Mouse
Sequence	Ile22-Pro98
Purity	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
Endotoxin Level	
Biological Activity	The biologically active determined by a chemotaxis bioassay using human peripheral blood lymphocytes is in a concentration range of 0.1-10.0 ng/ml in the presence of IL-2.
Expression System	E. coli
Theoretical Molecular Weight	8.7 kDa
Formulation	Lyophilized from a 0.2 □m filtered solution in 2 × PBS, pH 7.4.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -20°C or -70°C. Upon reconstitution, the product should be stable for up to 1 week at 2-8°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	15945
Other Names	C-X-C motif chemokine 10, 10 kDa interferon gamma-induced protein, Gamma-IP10, IP-10, C7, Interferon-gamma induced protein CRG-2, Small-inducible cytokine B10, Cxcl10, Crg2, Ifi10, Inp10, Scyb10
Target Background	CXCL10 also known as IP-10 is belonging to the CXC chemokine family. It is encoded by the CXCL10 gene, and in murine it is also named the CRG-2 gene. The gene was originally identified as an immediate early gene induced in response to macrophage activation. This chemokine elicits its effects by binding to the cell surface chemokine receptor CXCR3. CXCL10 has been shown to be a chemoattractant for activated T-lymphocytes and monocytes/macrophages. It also has other roles, such as promotion of T cell adhesion to endothelial cells, and inhibition of bone marrow colony formation and angiogenesis. Murine CXCL10 shares approximately 67 % amino acid

sequence identity with human CXCL10.

Protein Information

Name	Cxcl10
Synonyms	Crg2, Ifi10, Inp10, 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) (PubMed:28623423). Plays thereby an important role during viral infections by stimulating the activation and migration of immune cells to the infected sites (PubMed:18624292, PubMed:19017990, PubMed:28468883). 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 (PubMed:15456824).
Cellular Location	Secreted {ECO:0000250|UniProtKB:P02778}.
Tissue Location	Expressed in the spleen, thymus, lymph nodes and liver (PubMed:8145049). Expressed in astrocytes, microglia, and neurons (PubMed:15456824).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.