

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CXCL9/MIG in ELISAs and Western blots. In ELISAs, does not cross-react with recombinant mouse (rm) CXCL9, recombinant human CXCL10.
Source	Monoclonal Mouse IgG ₁ Clone # 49106
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human CXCL9/MIG Thr23-Thr125 Accession # Q07325
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	THP-1 cells treated with Recombinant Human IFN-γ (Catalog # 285-IF), fixed with paraformaldehyde, and permeabilized with saponin

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CXCL9, a member of the α subfamily of chemokines that lack the ELR domain, was initially identified as a lymphokine-activated gene in mouse macrophages. Human CXCL9 was subsequently cloned using mouse MIG cDNA as a probe. The CXCL9 gene is induced in macrophages and in primary glial cells of the central nervous system specifically in response to IFN-γ. CXCL9 has been shown to be a chemoattractant for activated T-lymphocytes and TIL but not for neutrophils or monocytes. The human CXCL9 cDNA encodes a 125 amino acid (aa) residue precursor protein with a 22 aa residue signal peptide that is cleaved to yield a 103 aa residue mature protein. CXCL9 has an extended carboxy-terminus containing greater than 50% basic aa residues and is larger than most other chemokines. The carboxy-terminal residues of CXCL9 are prone to proteolytic cleavage resulting in size heterogeneity of natural and recombinant CXCL9. CXCL9 with large carboxy-terminal deletions have been shown to have diminished activity in the calcium flux assay. A chemokine receptor (CXCR3) specific for CXCL9 and IP-10 has been cloned and shown to be highly expressed in IL-2-activated T-lymphocytes. The *E. coli*-expressed CXCL9 preparations produced at R&D Systems have been shown to contain greater than 80% full length CXCL9.

References:

1. Loetscher, M. *et al.* (1996) *J. Exp. Med.* **184**:963.
2. Liao, F. *et al.* (1995) *J. Exp. Med.* **182**:1301.
3. Vanguri, P. (1995) *J. Neuroimmunol.* **56**:35.

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