

Chemokine (C-X-C motif) Ligand 9

Human, Recombinant (rHuMIG/rHuCXCL9)

Expressed in *E. coli*

Cat. No. CRP08145

Lot. No. (See product label)

PRODUCT INFORMATION

Description: 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. 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 residue precursor protein with a 22 amino acid residue signal peptide that is cleaved to yield a 103 amino acid residue mature protein. CXCL9 has an extended carboxy-terminus containing greater than 50% basic amino acid residues and is larger than most other chemokines. A chemokine receptor (CXCR3) specific for CXCL9 and IP-10 has recently been cloned and shown to be highly expressed in IL-2-activated T-lymphocytes.

Amino-Acid Sequence: 103aa, non-glycosylated

M. W. : 11.7 kDa

Recombinant: Expressed in *E. coli*

Purity: >97% by SDS-PAGE and HPLC analyses.

Formulation: Lyophilized from a 0.2 μ m filtered concentrated (1.0mg/ml) solution in 20mM PB, pH 7.4, 50mM NaCl.

Specific Activity: Fully biologically active when compared to standard. Determined by its ability to chemoattract human peripheral blood T-Lymphocytes using a concentration range of 10.0-100.0 ng/ml.

Endotoxin: Less than 1EU/ μ g of rHuMIG/CXCL9 as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at <-20° C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable for several weeks at 2-8° C, but should be kept at -20° C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8° C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20° C to -70° C. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

Gene Name: [CXCL9 chemokine \(C-X-C motif\) ligand 9](#)

Synonyms: CMK; MIG; Humig; SCYB9; crg-10; Gamma-interferon-induced monokine; Small-inducible cytokine B9; chemokine (C-X-C motif) ligand 9; monokine induced by gamma interferon; small inducible cytokine B9; CXCL9_HUMAN; C-X-C motif chemokine 9 [Precursor]; Gamma-interferon-induced monokine.

GeneID: [4283](#)

mRNA Refseq: [NM_002416](#)

Protein Refseq: [NP_002407](#)

MIM: [601704](#)

UniProt ID: [Q07325](#)

Chromosome Location: 4q21

Pathway: Cytokine-cytokine receptor interaction; Toll-like receptor signaling pathway

Function: chemokine activity

REFERENCES

1. Farber JM (1990). "A macrophage mRNA selectively induced by gamma-interferon encodes a member of the platelet factor 4 family of cytokines." Proc. Natl. Acad. Sci. U.S.A. 87 (14): 5238-42.
2. Liao F, Rabin RL, Yannelli JR, et al. (1995). "Human Mig chemokine: biochemical and functional characterization." J. Exp. Med. 182 (5): 1301-14.
3. Farber JM (1993). "HuMig: a new human member of the chemokine family of cytokines." Biochem. Biophys. Res. Commun. 192 (1): 223-30.

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21 Brookhaven BLVD · Port Jefferson Station, NY 11776, USA
Technical Support: T: 631-871-5806 · F: 631-614-7828
E-mail: info@creative-biolabs.com
www.creative-biolabs.com