

## MIG/CXCL9, Human

**Cat. No.:** Z02822-20

**Size:** 20.0 ug

**Synonyms:** MIG/CXCL9, Human;

### Description:

CXCL9, a member of the  $\alpha$  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- $\gamma$ <sup>3</sup>. 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:

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00001 TPVVRKGRCS CISTNQGTIH LQSLKDLKQF APSPSCEKIE
00041 IIATLKNGVQ TCLNPDSADV KELIKKWEKQ VSQKKKQKNG
00081 KKHQKKKVLK VRKSQRSRQK KTT
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**Source:** *E. coli*

**Species:** Human

**Biological Activity:** Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human peripheral blood T-lymphocytes is in a concentration range of 10-100 ng/ml.

**Molecular Weight:** Approximately 11.7 kDa, a single non-glycosylated polypeptide chain containing 103 amino acids.

**Formulation:** Lyophilized from a 0.2  $\mu$ m filtered concentrated solution in 20 mM PB, pH 7.4, 50 mM NaCl.

**Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**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  $\leq -20^\circ\text{C}$ . Further dilutions should be made in appropriate buffered solutions.

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

**Endotoxin Level:** Less than 1 EU/ $\mu$ g of rHu-MIG/CXCL9 as determined by LAL method.

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