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Product Information

MIG, HUMAN Recombinant, Expressed in *E. coli*

Product Number **M252**

Product Description

MIG, human is a member of the α (CXC) chemokine family of inflammatory and immunoregulatory cytokines. It is also a chemoattractant for activated T lymphocytes and TIL.

MIG, human is an approximately 11.7 kDa recombinant protein containing 103 amino acids. MIG, human is derived from a DNA sequence encoding mature MIG protein sequence that was expressed in *E. coli*.

MIG human was initially identified as a lymphokine-activated gene in mouse macrophages. The MIG gene is induced in macrophages and in primary glial cells of the central nervous system, specifically, in response to IFN- γ . MIG is not a chemoattractant for neutrophils or monocytes. MIG cDNA encodes a 125 amino acid residue precursor protein with a 22 residue signal peptide that is cleaved to yield a 103 residue mature protein. MIG has an extended carboxy-terminus containing greater than 50% basic amino acid residues and is larger than most other chemokines. The carboxy-terminal residues are prone to proteolytic cleavage resulting in size heterogeneity of natural and recombinant MIG. MIG with large carboxy-terminal deletions has been shown to have diminished activity in the calcium flux assay. A chemokine receptor (CXCR3) specific for MIG and IP-10 (Product No. I154) has recently been cloned and shown to be highly expressed in IL-2-activated T-lymphocytes. The *E. coli*-expressed MIG contains greater than 80% full length MIG.

Reagents

MIG, human is lyophilized from a sterile-filtered solution in 30% CH₃CN and 0.1% TFA containing 50 μ g of bovine serum albumin per 1 μ g of cytokine.

Precautions and Disclaimer

While no human toxicity is available for this substance, it should be handled with care. Precautions should be taken to avoid contact by all routes of exposure.

Storage/Stability

Store MIG, human tightly sealed at -20 °C. After reconstitution and for continuous use, store at 2-8 °C for up to one month. For extended storage, solution may be frozen in working aliquots. Storage in "frost-free" freezers is not recommended. Repeated freezing and thawing is not recommended.

Reconstitution

For reconstitution of MIG, human it is recommended that sterile PBS containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of no less than 20 μ g/ml.

Product Profile

MIG, human is measured by its ability to chemoattract lymphocytes cultured in the presence of IL-2 for 8-10 days. The ED₅₀ for this effect is typically 0.2 – 0.6 μ g/ml.

References

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