



Macrophage Inflammatory Protein-3 α
MIP-3 α
Human Recombinant,
Expressed in *E. coli*

Product Number: **M3677**

Product Description

MIP-3 α , also known as LARC or Exodus, is one of the many β -chemokines identified through the Expressed Sequence Tag database.^{1,3} MIP-3 α cDNA encodes a 96 amino acid precursor protein and a 26 amino acid signal peptide.^{1,2} The resulting 70 amino acid mature protein has only 20-28% homology with other related human β -chemokines.^{1,2,4}

The gene for MIP-3 α has been mapped to chromosome 2 rather than chromosome 17 where many human β -chemokine genes are located.^{1,4,6}

Expression of the chemokine is detected in the lymphoid tissues, fetal lung and fetal liver.^{2,3,4}

Recombinant and native MIP-3 α are known chemoattractants of lymphocytes *in vitro*.^{2,4}

Additionally, a growing body of work has identified MIP-3 α as a functional ligand of GPR-CY4 orphan receptor or CCR6 and given useful information about *in vivo* function.^{2,4,5}

Performance Characteristics

Recombinant MIP-3 α has been tested for its ability to induce calcium flux in HEK 293 cells stably expressing CCR6. The ED₅₀ value is defined as the effective concentration of chemokine that induces 50% calcium flux in a cell-based assay.

Product Information

Expressed in *E. coli*

Molecular Weight: approx. 8 kD

Purity: \geq 95% by SDS-PAGE, visualized with silver stain.

ED₅₀: 0.3 nM by calcium flux induction⁴

Package size: 25 μ g

Formulation: lyophilized from a solution containing

Product Information

30% acetonitrile, 0.1% trifluoroacetic acid (pH 2.0) and 50 μ g bovine serum albumin (BSA) / μ g chemokine.
Carrier Protein: 50 μ g BSA/ μ g of chemokine.
Sterility: 0.22 μ m-filtered, aseptic-fill
Endotoxin: \leq 0.1 ng/ μ g as determined by LAL

Reconstitution and Use

Reconstitute the contents of the vial using sterile buffer or medium containing a minimum of 0.1% BSA or human serum albumin (HSA). Stock concentration should be no less than 25 μ g/ml. Additional filtration of the stock solution is **not** recommended since adsorption of the product to the filter membrane may occur.

Storage

Store the lyophilized powder at -20°C to -70°C. The sterile reconstituted solution can be stored at 2-4°C for a maximum of 1 month. For extended storage, freeze in working aliquots at -20°C up to 3 months.

Avoid repeated freeze-thaw cycles.

References

1. Rossi, D.L. et al., J. Immunol., **158**, 1033-1036 (1997).
2. Hieshima, K. et al., J. Biol. Chem., **272** (9), 846-853 (1997).
3. Hromas, R. et al., Blood, **89** (9), 3315-3322 (1997).
4. Baba, M. et al., J. Biol. Chem., **272**, 14893-14898 (1997).
5. Greaves, D. R. et al., J. Exp. Med., **186** (6), 837-844 (1997).
6. The Cytokine Facts Book, Callard, R. and Gearing, A. eds., Academic Press, (London: 1994), p.3.

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