

Product Information

Macrophage Inflammatory Protein-3b

(MIP-3b)

human, recombinant
expressed in *E. coli*

Product Number **M 3552**

Product Description

Macrophage Inflammatory Protein-3 β (MIP-3 β), also known as EBI 1-Ligand Chemokine (ELC), is one of the many β -chemokines identified through the Expressed Sequence Tag database.¹ MIP-3 β cDNA encodes a 98 amino acid precursor protein and a 21 amino acid signal peptide.^{1, 2} The resulting 77 amino acid, mature 8.8 kDa protein has only 20-30% sequence homology with other related human β -chemokines.^{1, 2}

The MIP-3 β gene has been mapped to chromosome 9p13 rather than chromosome 17 where many human β -chemokine genes are located.^{1, 2, 4} Expression of the chemokine is primarily detected in lymphoid tissues such as thymus, lymph nodes, appendix, and spleen.¹ Recombinant MIP-3 β is a potent chemoattractant of cultured human lymphocytes² and dendritic cells.^{5, 6} Additionally, a growing body of work has identified MIP-3 β as a functional ligand of EBI1 ligand chemokine orphan receptor or CCR7 and given useful information about *in vivo* function.^{2, 5}

Reagent

The product is lyophilized from a 0.2 μ m-filtered solution containing 35% acetonitrile, 0.1% trifluoroacetic acid (pH 2.0), and 50 μ g of bovine serum albumin per μ g of cytokine.

Storage/Stability

Store the lyophilized powder at -20 to -70 $^{\circ}$ C. The sterile reconstituted solution can be stored at 2-4 $^{\circ}$ C for a maximum of 1 month. For extended storage, freeze in working aliquots at -20 $^{\circ}$ C up to 3 months. Repeated freezing and thawing is not recommended.

Preparation Instructions

Reconstitute the contents of the vial with sterile buffer or medium containing a minimum of 0.1% BSA or human serum albumin (HSA). The 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.

Product Profile

Recombinant MIP-3 β has been tested using BAF33 cells transfected with human CCR7. The ED₅₀ value is defined as the effective concentration of chemokine that elicits 50% chemotactic response in a cell-based bioassay.

References

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3. Howell, D. N., et al., *J. Immunol.*, **134**, 971-976 (1985).
4. The Cytokine Facts Book, Callard, R. and Gearing, A., eds., Academic Press, (London: 1994), p.3.
5. Kellerman, S.A., et al., *J. Immunol.*, **162**, 3859-3864 (1999).
6. Lin, C.L. et al., *Eur. J. Immunol.*, **28**, 4114-4122 (1998).

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