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Product Information

Monocyte Chemotactic Protein-5

Mouse, recombinant
Expressed in *E. coli*

Product Number **M-263**

Product Description

Monocyte Chemotactic Protein-5 (MCP-5) is from a DNA sequence encoding the mature mouse MCP-5 protein sequence and expressed in *E. coli*. The 82 amino acid recombinant protein has a predicted molecular mass of ~ 9.3 kDa.

Recombinant Mouse Monocyte Chemotactic Protein-5 (MCP-5), a mouse CC chemokine, is most closely related to human MCP-1 (Cat. No. M-243, 66% amino acid sequence identity). Mouse MCP-5 encodes a 104 amino acid residue precursor protein with a 22 amino acid residue predicted hydrophobic signal sequence that is cleaved to generate an 82 amino acid residue mature protein. MCP-5 is expressed constitutively in the thymus and lymph nodes. Under inflammatory conditions, MCP-5 expression is also induced in activated macrophages and mast cells. The gene has been mapped to the CC chemokine cluster on chromosome 11. Recombinant MCP-5 has been shown to be a potent chemoattractant for monocytes and lymphocytes but not neutrophils. At high concentrations, MCP-5 also chemoattracts eosinophils. MCP-5 has been found to be a functional ligand for CCR-2 but not CCR-1, CCR-3, or CCR-5.

Reagent

The product is supplied lyophilized from a 0.2 µm-filtered solution in 30% acetonitrile and 0.1% trifluoroacetic acid containing 50 µg bovine serum albumin per 1 µg of cytokine.

Storage/Stability

Store at -20 °C.

After reconstitution, the product can be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at -20 °C or -70 °C. Repeated freezing and thawing are not recommended. Do not store in a frost-free freezer.

Reconstitution

Reconstitute the contents of the vial using sterile-filtered phosphate buffered saline containing 0.1% human serum albumin or bovine serum albumin to a concentration of no less than 10 µg/mL.

Product Profile

The biological activity of MCP-5 was tested by measuring its ability to chemoattract 2 day cultured THP-1 cells human monocytes. The EC₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Purity: >97% as determined by SDS-PAGE and visualized by silver stain.

Endotoxin: <0.1 ng per 1 µg of the cytokine as determined by the LAL method.

References

1. Jia, G.Q., et al., J. Exp. Med., **184**, 1939 (1996).
2. Sarafi, M.N., et al., J. Exp. Med., **185**, 99 (1997).

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