

Product Information

Monocyte Chemotactic Protein-3

Human, recombinant
Expressed in *E. coli*

Product Number **M 8543**

Product Description

Monocyte Chemotactic Protein-3 (MCP-3) is functionally related to MCP-1. It is a product of stimulated human MG-63 osteosarcoma cells.¹ The mature recombinant protein form of MCP-3 consists of 76 amino acids, contains potential N-linked and O-linked glycosylation sites and has a molecular weight of approximately 9000 kda.² The first two cysteine residues are in an adjacent position (C-C), which characterizes MCP-3 as a member of the chemokine β subfamily. It shares 71% and 58% amino acid sequence homology, respectively, with MCP-1 and MCP-2.

MCP-3 is a monocyte chemoattractant. It can be induced in various cell types, such as fibroblasts, endothelial cells, monocytes and lymphocytes, in response to a variety of stimuli.³ Overall, it plays a role in cell migration during inflammation and is implicated in the invasive behavior of tumors.^{1, 3}

Reagent

The product is supplied lyophilized from a 0.2 μm -filtered solution in 30% acetonitrile and 0.1% trifluoroacetic acid, pH 2.0, containing 50 μg bovine serum albumin (BSA) per 1 μg of cytokine.

Storage/Stability

Store at $-20\text{ }^{\circ}\text{C}$.

After reconstitution, the product can be stored at $2-8\text{ }^{\circ}\text{C}$ for up to one month. For extended storage, freeze in working aliquots at $-20\text{ }^{\circ}\text{C}$ or $-70\text{ }^{\circ}\text{C}$. 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 PBS containing 0.1% human serum albumin (HSA) or bovine serum albumin (BSA) to a concentration of no less than 10 $\mu\text{g}/\text{mL}$.

Product Profile

The biological activity of MCP-3 was tested in culture by measuring its ability to chemoattract mouse BaF/3 cells transfected with hCCR2A. The EC_{50} is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

References

1. Van Coillie, E, et al., Biochem. Biophys. Res. Commun. **231**, 726-730, (1997).
2. The Cytokine Facts Book, eds., R. Callard and A. Gearing, (Academic Press, 1994), p. 171.
3. Van Damme, J., et al. J. Exp. Med., **176**, 59-65, (1992).
4. Matsushima, K., et al., J. Exp. Med., **169**, 1485 (1989).

KAA 08/05

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.