

Recombinant Human Monocyte Chemotactic Protein-3 (CCL7)

Alternate names: CCL7, MCP3

Catalog No.: PA1160XC

Quantity: 1 mg

Concentration: 1 mg/ml

Species: Human

Source: E. coli, E.coli

Format: **State:** Sterile Filtered White lyophilized (freeze-dried) powder.

Purity: >99% Greater than 99.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained.

Buffer System: Recombinant Human Monocyte Chemotactic Protein-3 was lyophilized from a concentrated sterile solution containing no additives.

Endotoxin Level: Less than 0.1 ng/μg (IEU/μg) of recombinant Monocyte Chemotactic Protein-3.

Dimers: Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

Reconstitution: It is recommended to reconstitute the lyophilized MCP-3 in sterile 18MO-cm H2O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

Description: Recombinant Human MCP-3 produced in E.Coli is a non-glycosylated, Polypeptide chain containing 76 amino acids. Human Monocyte Chemotactic Protein-3 is purified by proprietary chromatographic techniques.

AA Sequence:

The sequence of the first five N-terminal amino acids was determined and was found to be Gln-Pro-Val-Gly-Ile.

Biological Activity: MCP-3 is fully biologically active when compared to standard. The specific activity as determined by the ability of MCP-3 to chemoattract human peripheral blood at 10-100ng/ml.

Molecular weight: 9011 Dalton.

Molecular weight: 9 kDa

Add. Information: Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm .

2. Analysis by RP-HPLC, using a calibrated solution of Human MCP-2 as a Reference Standard.

- Storage:** Lyophilized Monocyte Chemotactic Protein-3 although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution Monocyte Chemotactic Protein-3 should be stored at 4 C between 2-7 days and for future use below -18 C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.
- General Readings:**
1. Tsou CL, Peters W, Si Y, Slaymaker S, Aslanian AM, Weisberg SP, et al. Critical roles for CCR2 and MCP-3 in monocyte mobilization from bone marrow and recruitment to inflammatory sites. *J Clin Invest.* 2007 Apr;117(4):902-9. Epub 2007 Mar 15. PubMed PMID: 17364026.
 2. McManus C, Berman JW, Brett FM, Staunton H, Farrell M, Brosnan CF. MCP-1, MCP-2 and MCP-3 expression in multiple sclerosis lesions: an immunohistochemical and in situ hybridization study. *J Neuroimmunol.* 1998 Jun 1;86(1):20-9. PubMed PMID: 9655469.
 3. Uguccioni M, Loetscher P, Forssmann U, Dewald B, Li H, Lima SH, et al. Monocyte chemotactic protein 4 (MCP-4), a novel structural and functional analogue of MCP-3 and eotaxin. *J Exp Med.* 1996 May 1;183(5):2379-84. PubMed PMID: 8642349.
 4. Proost P, Van Leuven P, Wuyts A, Ebberink R, Opdenakker G, Van Damme J. Chemical synthesis, purification and folding of the human monocyte chemotactic proteins MCP-2 and MCP-3 into biologically active chemokines. *Cytokine.* 1995 Feb;7(2):97-104. PubMed PMID: 7780043.
 5. Uguccioni M, D'Apuzzo M, Loetscher M, Dewald B, Baggiolini M. Actions of the chemotactic cytokines MCP-1, MCP-2, MCP-3, RANTES, MIP-1 alpha and MIP-1 beta on human monocytes. *Eur J Immunol.* 1995 Jan;25(1):64-8. PubMed PMID: 7531149.
 6. Opdenakker G, Froyen G, Fiten P, Proost P, Van Damme J. Human monocyte chemotactic protein-3 (MCP-3): molecular cloning of the cDNA and comparison with other chemokines. *Biochem Biophys Res Commun.* 1993 Mar 15;191(2):535-42. PubMed PMID: 8461011.

Pictures: PA1160XCME0607

