

## Recombinant Murine Monocyte Chemotactic Protein-3 (CCL7)

**Alternate names:** CCL7, MCP3

**Catalog No.:** PA1161XC

**Quantity:** 1 mg

**Concentration:** 1 mg/ml

**Species:** Mouse

**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:** The protein was lyophilized from a concentrated sterile solution containing no additives.

**Endotoxin Level:** Less than 0.1 ng/μg (IEU/μg) of Murine 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 Murine MCP-3 produced in E.Coli is a non-glycosylated, Polypeptide chain containing 74 amino acids. Murine 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-Ala-Gly-Pro.

**Biological Activity:** Murine MCP-3 is fully biologically active when compared to standard.

The specific activity as determined by the ability of Murine MCP-3 to chemoattract Balb/C mouse spleen MNCs at 10-100ng/ml.

Molecular weight: 8510 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 Murine MCP-3 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. Wetzel K, Struyf S, Van Damme J, Kayser T, Vecchi A, Sozzani S, et al. MCP-3 (CCL7) delivered by parvovirus MVMP reduces tumorigenicity of mouse melanoma cells through activation of T lymphocytes and NK cells. *Int J Cancer.* 2007 Mar 15;120(6):1364-71. PubMed PMID: 17154174.
  3. Meyer-Hoffert U, Lezcano-Meza D, Bartels J, Montes-Vizuet AR, Schröder JM, Teran LM. Th2- and to a lesser extent Th1-type cytokines upregulate the production of both CXCL8 (IL-8 and gro-α) and CC (RANTES, eotaxin, eotaxin-2, MCP-3 and MCP-4) chemokines in human airway epithelial cells. *Int Arch Allergy Immunol.* 2003 Aug;131(4):264-71. PubMed PMID: 12915769.
  4. Hu JY, Li GC, Zhu JG, Wang WM, Li YH, Zhou GH, et al. [Active immunity for anti-colorectal cancer induced by chemokine MCP-3 gene transfection]. *Ai Zhonghua.* 2002 May;21(5):504-8. PubMed PMID: 12452041.
  5. Hu JY, Li GC, Wang WM, Zhu JG, Li YF, Zhou GH, et al. Transfection of colorectal cancer cells with chemokine MCP-3 (monocyte chemotactic protein-3) gene retards tumor growth and inhibits tumor metastasis. *World J Gastroenterol.* 2002 Dec;8(6):1067-72. PubMed PMID: 12439927.
  6. Nelissen I, Dubois B, Goris A, Ronsse I, Carton H, Opdenakker G. Gelatinase B, PECAM-1 and MCP-3 gene polymorphisms in Belgian multiple sclerosis. *J Neurol Sci.* 2002 Aug 15;200(1-2):43-8. PubMed PMID: 12127674.

**Pictures:** PA1161XCME0607

