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Recombinant Human Monocyte Chemotactic Protein-1/MCAF (CCL2)

Alternate names:	CCL2, MCP1
Catalog No.:	PA1156XC
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 98.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Anion-exchange FPLC.
(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.
Buffer System: Lyophilized from a concentrated solution in water containing no additives.
Endotoxin Level: Less than 0.1 ng/µg (IEU/µg) of rHuMCP-1.
Dimers: Less than 1% as determined by silver-stained SDS-PAGE gel analysis.
Reconstitution: It is recommended to reconstitute the lyophilized rHuMCP-1 in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Description: Recombinant Human MCP-1 also known as Monocyte Chemotactic and Activating Factor (MCAF) produced in E.Coli is a non-glycosylated, Polypeptide chain containing 76 amino acids. The rHuMCP-1 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-Asp-Ala-Ile.
Biological Activity: MCP-1 is fully biologically active when compared to standard.
ED50=3.0-10 ng/mL. The biological activity was determined by measuring dose dependent chemotaxis with human THP-1 cells.
Molecular weight: 8607 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 standard solution of MCP-1 as a Reference Standard.

Storage: Lyophilized rHuMCP-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution rHuMCP-1 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.

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General Readings:

1. Mitomycin C upregulates IL-8 and MCP-1 chemokine expression via mitogen-activated protein kinases in corneal fibroblasts. Invest Ophthalmol Vis Sci 2007 May;48(5):2009-16

2. Elevated ICAM-1 and MCP-1 plasma levels in subjects at high cardiovascular risk are diminished by atorvastatin treatment. Atorvastatin on Inflammatory Markers study: a substudy of Achieve Cholesterol Targets Fast with Atorvastatin Stratified Titration.
Am Heart J 2007 May;153(5):881-8

3. Inhibition of migration of monocytes and granulocytes in vivo by the peptide corresponding to sequence 65-76 of monocyte chemotactic protein-1 (MCP-1).
Dokl Biochem Biophys 2006 Nov-Dec;411:339-41

4. Elevated white blood cell count, CRP and fibrinogen levels are not associated with increased anti-endothelial and anti-ox-LDL antibody, MCP-1, and RANTES levels in early onset occlusive carotid artery disease.
Cytokine 2007 Jan;37(1):44-50

5. Coxiella burnetii stimulates production of RANTES and MCP-1 by mononuclear cells: modulation by adhesion to endothelial cells and its implication in Q fever.
Eur Cytokine Netw 2006 Dec;17(4):253-9

6. Changes in serum and ascitic monocyte chemotactic protein-1 (MCP-1) and IL-10 levels in cirrhotic patients with spontaneous bacterial peritonitis.
J Interferon Cytokine Res 2007 Mar;27(3):227-30

Pictures:

PA1156XCME0607

For research and in vitro use only. Not for diagnostic or therapeutic work.
Material Safety Datasheets are available at www.acris-antibodies.com or on request.

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