

Recombinant Murine Monocyte Chemotactic Protein-1 (rm MCP-1 / CCL2)

MCP-1 is a small cytokine belonging to the CC chemokine family. It is found at the site of tooth eruption and bone degradation. In the bone MCP-1 is expressed by mature osteoclasts and osteoblasts and is under the control of nuclear factor κ B (NF κ B). MCP-1 recruits immune cells, such as monocytes, to sites of tissue injury and infection. It is produced as a protein precursor containing signal peptide of 23 amino acids and a mature peptide of 76 amino acids. It is a monomeric polypeptide, with a molecular weight of approximately 13kDa. The cell surface receptors that bind MCP-1 are CCR2 and CCR5.

Recombinant murine MCP-1 produced in *E.Coli* is a non-glycosylated, polypeptide chain containing 125 amino acids and having a molecular mass of 13.8 kDa.

Synonyms :	Small inducible cytokine A2 (SCYA2), Monocyte chemotactic and activating factor, MCAF, Monocyte secretory protein JE, HC11
Source:	<i>Escherichia coli</i>
AA Sequence:	The sequence of the first five N-terminal amino acids was determined and was found to be Gln-Pro-Asp-Ala-Val.
Formulation:	Lyophilisate from a 0.22 μ m filtered carrier free solution in 50 mM sodium phosphate pH 7.6 + 50mM NaCl
Reconstitution:	Reconstitute in sterile endotoxin free water not less than 100 μ g/ml
Stability:	The lyophilized protein is stable for at least 2 years at -20° C. Reconstituted rm MCP-1 is stable for at least 3 months when stored in concentrated working aliquots (100 ng/ μ l or higher) at -20° C. Avoid repeated freeze/thaw cycles.
Biological Activity:	Determined by measuring the dose dependent chemotaxis with human THP-1 cells the ED50 is 111.0 – 10 ng/ml
Purity:	95% (verified by SDS-PAGE / silver stain)
Endotoxicity:	The endotoxin level is less than 0.1 ng per μ g (1EU/ μ g) determined by LAL method
Order N^o:	rm MCP-1+Size available sizes: 2 μ g, 10 μ g, 50 μ g

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