

**Mouse MCP-1**

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MW (kDa):	UniProt ID:	Entrez-Gene Id:
8.5	#P10148	20296

**Background**

MCP-1 (CCL2) is the first member of the C-C family of chemokines to be identified (1). C-C chemokines are characterized by two adjacent cysteine residues within the polypeptide, which form an intramolecular disulfide bond. MCP-1 is a potent chemotactic factor for monocytes/macrophages, T cells and a subset of NK cells (1-4). The MCP-1 receptor, CCR2, is expressed as two splice isoforms, CCR2A and CCR2B, of which CCR2B is the predominant form (1). MCP-1 is secreted by adipocytes and appears to be one of many links between obesity, inflammation, and diabetes (1). MCP-1/CCR2 signaling appears to play a key role in  $\gamma\delta$  effector T cells recruitment and anti-tumor responses in a murine B16 melanoma model (2). Conversely, CCL2 expression is upregulated in many types of cancer and has been implicated in promoting tumor cell survival, proliferation, and tumor associated inflammation (4).

**Endotoxin**

Less than 0.01 ng endotoxin/1  $\mu$ g mMCP-1.

**Purity**

>93% as determined by SDS-PAGE of 6  $\mu$ g reduced (+) and nonreduced (-) recombinant mMCP-1. All lots are greater than 93% pure.

**Source / Purification**

Recombinant Mouse MCP-1 (mMCP-1) Gln24-Arg96 (Accession #NP\_035463) was expressed in *E.coli* at Cell Signaling Technology.

**Bioactivity**

The activity of mMCP-1 was determined using a THP-1 cell migration assay. The ED<sub>50</sub> of each lot is between 1-11 ng/ml.

**Background References**

1. Panee, J. (2012) *Cytokine* 60, 1-12.
2. Lança, T. et al. (2013) *J Immunol* 190, 6673-80.
3. van Helden, M.J. et al. (2012) *PLoS One* 7, e52027.
4. Zhang, J. et al. (2010) *Cytokine Growth Factor Rev* 21, 41-8.

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