

**DATASHEET**  
Version 20181206**MCP-1/CCL2, Rat****Cat. No.:** Z03285-25**Size:** 25.0 ug**Synonyms:** MCP-1, MCAF, JE, Monocyte Chemo-tactic Protein-1 (MCP-1), CCL2**Description:**

Chemokine (C-C motif) ligand 2 (CCL2) is also referred to as monocyte chemotactic protein 1 (MCP1) and small inducible cytokine A2. CCL2 is a small cytokine that belongs to the CC chemokine family. CCL2 recruits monocytes, memory T cells, and dendritic cells to the sites of inflammation produced by either tissue injury or infection. CCL2 is implicated in the pathogenesis of several diseases characterized by monocytic infiltrates, such as psoriasis, rheumatoid arthritis and atherosclerosis. CCL2 is anchored in the plasma membrane of endothelial cells by glycosaminoglycan side chains of proteoglycans. CCL2 is primarily secreted by monocytes, macrophages and dendritic cells. CCL2 can signal through the CCR2 receptor.

Recombinant rat MCP-1/CCL2 produced in HEK293 cells is a polypeptide chain containing 125 amino acids. A fully biologically active molecule, rrMCP-1/CCL2 has a molecular mass of 10-15 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

**Amino Acid Sequence:**

00001 QPDAVNAPLT CCYSFTGKMI PMSRLINYKR ITSSRCPKKA  
00041 VVFVTKLKRE ICADPNKEWV QKYIRKLDQN QVRSETTVFY  
00081 KIASLTLRTSA PLNVNLTHKS EANASTLFST TTSSTSEVET  
00121 SMTEN

**Source:** HEK 293**Species:** Rat**Biological Activity:** The EC<sub>50</sub> value of rat MCP-1/CCL2 on Ca<sup>2+</sup> mobilization assay in CHO-K1/G $\alpha$ 15/rCCR2 cells (human G $\alpha$ 15 and rat CCR2 stably expressed in CHO-K1 cells) is less than 0.3  $\mu$ g/ml.**Molecular Weight:** 10-15 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.**Purity:** > 98% as analyzed by SDS-PAGE.**Endotoxin Level:** < 0.2 EU/ $\mu$ g, determined by LAL method.**Storage:** Lyophilized recombinant Rat MCP-1/CCL2 remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Rat MCP-1/CCL2 should be stable up to 1 week at 4°C or up to 3 months at -20°C.