10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MCP-1/CCL2

Catalog # PVGS1482

Product Information

Primary Accession	P14844
Species	Rat
Sequence	Gln24-Asn148
Purity	> 98% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	The EC_{50} value of rat MCP-1/CCL2 on Ca^{2+} mobilization assay in CHO-K1/G15/rCCR2 cells (human G15 and rat CCR2 stably expressed in CHO-K1 cells) is less than 0.3 □g/ml.
Expression System	HEK 293
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 □g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	24770
Other Names	C-C motif chemokine 2, Immediate-early serum-responsive protein JE, Monocyte chemoattractant protein 1, Monocyte chemotactic protein 1, MCP-1, Small-inducible cytokine A2, Ccl2, Je, Mcp1, Scya2
Target Background	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 pathogeneses of several types of disease 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.

Protein Information

Name	Ccl2
Synonyms	Je, Mcp1, Scya2
Function	Acts as a ligand for C-C chemokine receptor CCR2 (By similarity). Signals through binding and activation of CCR2 and induces a strong chemotactic response and mobilization of intracellular calcium ions (By similarity). Exhibits a chemotactic activity for monocytes and basophils but not neutrophils or eosinophils (By similarity). Plays an important role in mediating peripheral nerve injury-induced neuropathic pain (By similarity). Increases NMDA-mediated synaptic transmission in both dopamine D1 and D2 receptor-containing neurons, which may be caused by MAPK/ERK-dependent phosphorylation of GRIN2B/NMDAR2B (By similarity).
Cellular Location	Secreted.