

## CCL2 Protein, Mouse, Recombinant

### General Information

Synonyms:	Ccl2;Je;Mcp1;C-C motif chemokine 2;Platelet-derived growth factor-inducible protein JE; Small-inducible cytokine A2;MCP-1;Monocyte chemotactic protein 1;Monocyte chemoattractant protein 1;Scya2
Protein Construction:	Gln24-Arg96
Species:	Mouse
Expression Host:	E. coli
Accession:	P10148
Molecular Weight:	12 KDa (reducing condition)
AA Sequence:	Gln24-Arg96

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. Greater than 95% as determined by SEC-HPLC.
Endotoxin:	< 0.001 ng/μg (0.01 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

C-C motif chemokine 2 (CCL2) is a member of the C-C or β chemokine family. Mouse CCL2 shares 82% amino acid (aa) identity with rat CCL2 over the entire sequence, and 58%, 56%, 55%, 53% and 53% aa identity with human, equine, porcine, bovine and canine CCL2, respectively. Fibroblasts, glioma cells, smooth muscle cells, endothelial

cells, lymphocytes and mononuclear phagocytes can produce CCL2 either constitutively or upon mitogenic stimulation, but monocytes and macrophages appear to be the major source. In addition to its chemotactic activity, CCL2 induces enzyme and cytokine release by monocytes, NK cells and lymphocytes, and histamine release by basophils that express its receptor, CCR2. Additionally, it promotes Th2 polarization in CD4+ T cells. CCL2-mediated recruitment of monocytes to sites of inflammation is proposed to play a role in the pathology of atherosclerosis, multiple sclerosis and allergic asthma.

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