

DATASHEET
Version 20181206**MCP-1/CCL2, Human****Cat. No.:** Z03292-1**Size:** 1.0 mg**Synonyms:** Monocyte Chemotactic Protein-1, CCL2, MCAF, JE (murine)**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. Human CCL2 cDNA encodes a 99 amino acid (aa) precursor protein with a 23 aa signal peptide and a 76 aa mature protein. Human CCL2 shares 78-79% aa identity with canine, porcine and equine CCL2, while mouse and rat express a form of CCL2 that is extended by 49 aa and shares only 56% aa identity within the common region.

Recombinant Human MCP-1/CCL2 produced in *E. coli* is a single non-glycosylated polypeptide chain containing 76 amino acids. A fully biologically active molecule, rhMCP-1/CCL2 has a molecular mass of 8.7 kD analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Source: *E. coli***Biological Activity:** The EC₅₀ value of human MCP-1/CCL2 on Ca²⁺ mobilization assay in CHO-K1/Gα15/hCCR2 cells (human Gα15 and human CCR2 stably expressed in CHO-K1 cells) is less than 1 µg /ml.**Molecular Weight:** 8.7 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O or PBS at 100 µg/ml.**Purity:** > 95% as analyzed by SDS-PAGE.**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant Human MCP-1/CCL2 remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, human MCP-1/CCL2 should be stable up to 1 week at 4°C or up to 3 months at -20°C.