Technical Data Sheet

Recombinant Human MCP-1

Product Information

Material Number:	**554620**
Size:	10 µg
Concentration:	200 µg/ml
Storage Buffer:	Frozen aqueous buffered solution containing BSA.

Description

Human monocyte chemoattractant protein-1 (MCP-1), also known as MCAF (monocyte chemotactic and activating factor), is a member of CC chemokine family. MCP-1 is produced by a variety of stimulated cell types including monocytes, lymphocytes, endothelial cells and fibroblasts. MCP-1 is a potent chemoattractant for monocytes and it also activates lymphocytes, basophils and NK cells. Recombinant human MCP-1 (Cat. No. 554620) is supplied as a frozen liquid comprised of 0.22 µm sterile-filtered aqueous buffered solution and bovine serum albumin, with no preservatives. Recombinant human MCP-1 is ≥ 95% pure as determined by SDS-PAGE, and an absorbance assay based on the Beers-Lambert law. The endotoxin level is ≤ 0.1 ng/µg of human MCP-1, as measured in a chromogenic LAL assay.

Preparation and Storage

Store product at -80°C prior to use or for long term storage of stock solutions.
Rapidly thaw and quick-spin product prior to use.
Avoid multiple freeze-thaws of product.
This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

ELISA	Routinely Tested
Bioassay	Tested During Development

Recommended Assay Procedure:

Upon initial thawing, recombinant human MCP-1 (Cat. No. 554620) should be aliquoted into polypropylene microtubes and frozen at -80˚C for future use. Alternatively, the product can be diluted in sterile neutral buffer containing not less than 0.5 - 10 mg/mL carrier protein, such as human or bovine albumin, aliquoted, and stored at -80°C. For use as an ELISA standard, carrier-protein concentrations of 5 - 10 mg/ mL are recommended. For *in vitro* biological assays, carrier-protein concentrations ≥ 0.5 mg/mL are suggested. Carrier proteins should be pre-screened for possible effects in each investigator's experimental system. Carrier proteins may have an undesired influence on experimental results due to toxicity, high endotoxin levels or possible blocking activity.

ELISA Standard: Human MCP-1 is useful as a quantitative standard for measuring human MCP-1 protein levels in a MCP-1 specific sandwich ELISA with the purified 10F7 antibody (Cat. No. 555055) as a capture antibody and the biotinylated clone 5D3-F7 (Cat. No. 554664) as the detection antibody. To obtain linear standard curves, doubling dilutions of this human MCP-1 standard from ~ 2000 to 4 pg/mL should be included with each ELISA plate. This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems, not for assay of serum or plasma samples. For measuring MCP-1 in serum or plasma, the BD OptEIA™ Human MCP-1 Set (Cat. No. 555179) is specially formulated and recommended.

Bioassay: Investigators are advised that the Bioassay application is not routinely tested for this material and are highly encouraged to both titrate this material and include appropriate controls in relevant experiments. Activity encompassing an EC50= 20 - 350 ng/mL has previously been reported using THP-1 indicator cells for proliferation.

Suggested Companion Products

Catalog Number	Name	Size	Clone
555055	Purified Mouse Anti-Human MCP-1	0.5 mg	10F7
554664	Biotin Mouse Anti-Human MCP-1	0.5 mg	5D3-F7
555179	Human MCP-1 ELISA Set	20 plates	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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