

Technical Data Sheet

Recombinant Mouse MCP-1

Product Information

Material Number:	554590
Size:	5 µg
Concentration:	100 µg/ml
Reactivity:	QC Testing: Mouse
Storage Buffer:	Frozen aqueous buffered solution containing BSA.

Description

Mouse monocyte chemoattractant protein-1 (MCP-1), previously termed JE, is a member of the CC chemokine family and a homolog of human MCP-1. MCP-1 is expressed by a variety of cell types including monocyte/macrophages, endothelial cells and mesangial cells. MCP-1 has chemoattractant activity on monocytes, lymphocytes and basophils but is not active on neutrophils. Recombinant mouse MCP-1 (MN 554590) is supplied as a frozen liquid comprised of 0.22 µm sterile-filtered aqueous buffered solution (pH 7.2) and containing 1.29 mg/mL bovine serum albumin, with no preservatives. Recombinant mouse 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 per µg of mouse 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 Standard	Routinely Tested
Bioassay	Tested During Development

Recommended Assay Procedure:

Upon initial thawing, recombinant mouse MCP-1 (MN 554590) 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 serum albumin, aliquoted and stored at -80°C. For *in vitro* biological assay use, carrier-protein concentrations of 0.5 - 1 mg/mL are recommended. For use as an ELISA standard, carrier-protein concentrations of 5 - 10 mg/mL are recommended. Failure to add carrier protein or store at indicated temperatures may result in a loss of activity. 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: Recombinant mouse MCP-1 (MN 554590) can be useful as a quantitative standard for measuring mouse MCP-1 protein levels using sandwich ELISA with the purified 2H5 antibody (Cat. No. 551217) as a capture antibody and the biotinylated 4E2/MCP antibody (Cat. No. 554444) as the detection antibody. To obtain linear standard curves, investigators may want to consider using doubling dilutions of recombinant mouse MCP-1 from 4000-30 pg/mL to be included for each ELISA plate. For measuring mouse MCP-1 in serum or plasma, investigators are highly encouraged to use the BD OptEIA™ Mouse MCP-1 Set (Cat. No. 555260).

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. An activity range encompassing an ED₅₀ = 50 - 800 ng/mL has previously been reported using THP-1 as indicator cells utilizing a calcium flux assay.

Suggested Companion Products

Catalog Number	Name	Size	Clone
551217	Purified Hamster Anti-Mouse MCP-1	1.0 mg	2H5
554444	Biotin Hamster Anti-Mouse MCP-1	0.5 mg	4E2/MCP
555260	Mouse MCP-1 ELISA Set	20 plates	(none)
554058	Avidin-Horseradish Peroxidase (HRP)	1.0 ml	(none)
555214	TMB Substrate Reagent Set	each	(none)

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.

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2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

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