

Technical Data Sheet

Biotin Mouse Anti-Human MCP-1

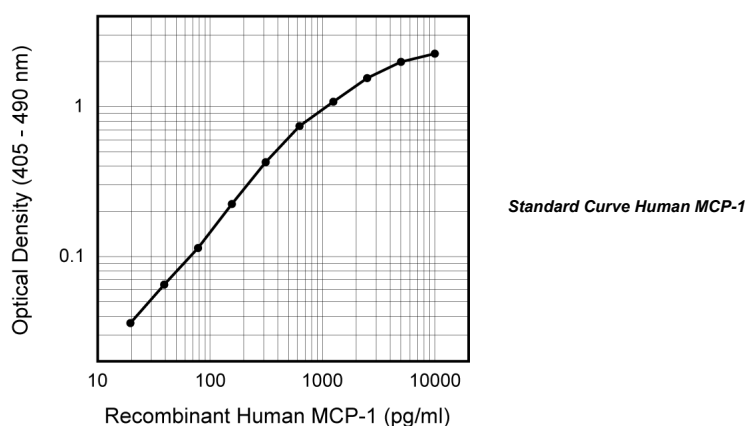
Product Information

Material Number:	554664
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	5D3-F7
Immunogen:	Recombinant Human MCP-1
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The 5D3-F7 antibody reacts with human monocyte chemoattractant protein-1 (MCP-1), also known as monocyte chemotactic and activating factor (MCAF).

This antibody is routinely tested by ELISA Detection. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

ELISA Detection

Routinely Tested

Recommended Assay Procedure:

ELISA Detection: The biotin-conjugated 5D3-F7 antibody (Cat. No. 554664) is useful as a detection antibody for a sandwich ELISA for Human MCP-1 measuring human MCP-1 protein levels. The biotin-conjugated 5D3-F7 antibody can be paired with the purified anti-human MCP-1 monoclonal antibody 10F7.2 (Cat. No. 555055) as the capture antibody and recombinant human MCP-1 (Cat. No. 554620) as the standard. The biotin-conjugated 5D3-F7 antibody should be titrated 0.5 - 4 μ g/ml to determine the optimal concentration for ELISA detection. To obtain linear standard curves, doubling dilutions of human MCP-1 ranging from ~5,000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit the protocols section or the chapter on ELISA in the Immune Function Handbook, both of which are posted on our web site, www.bdbiosciences.com.

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Note 1: This ELISA pair shows no cross-reactivity with any of the following chemokines tested (e.g., Human eotaxin , MCP-2, MCP-3, MCP-4, mouse MCP-1 and rat MCP-1).

Note 2: This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems. These ELISA reagents are not recommended for assaying serum or plasma samples. For measurement of human MCP-1 in serum or plasma samples the BD OptEIA™ Human MCP-1 ELISA Set (Cat. No. 555179) or the BD OptEIA™ Human MCP-1 ELISA Kit (Cat. No. 559017) are recommended.

WB: The 5D3-F7 antibody (e.g., Cat. No. 554662) has been reported to be useful for Western blotting.

Neutralization: The NA/LE™ 5D3-F7 antibody (Cat. No. 554661) has been reported to be useful for neutralization of human MCP1 bioactivity. A suitable NA/LE™ mouse IgG1 isotype control to match the 5D3-F7 antibody is the 107.3 antibody (Cat. No. 554721).

Immunofluorescent Staining and Cytometric Analysis: The 5D3-F7 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify and enumerate MCP-1 producing cells within mixed cell populations. PE-conjugated 5D3-F7 antibody (Cat. No. 554666 or 559324) are especially suitable for these studies. For specific methodology, please visit the protocols section or the chapter on intracellular staining in the Immune Function Handbook, both of which are posted on our web site, www.bdbiosciences.com.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554620	Recombinant Human MCP-1	10 µg	(none)
559017	Human MCP-1 ELISA Kit	2 plates	(none)
555179	Human MCP-1 OptEIA Set	20 tests	(none)
555055	Purified Mouse Anti-Human MCP-1	0.5 mg	10F7

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Matsushima K, Oppenheim JJ. Interleukin 8 and MCAF: novel inflammatory cytokines inducible by IL 1 and TNF. *Cytokine*. 1989; 1(1):2-13.(Biology)
Peri G, Milanese C, Matteucci C, et al. A new monoclonal antibody (5D3-F7) which recognizes human monocyte-chemotactic protein-1 but not related chemokines. Development of a sandwich ELISA and in situ detection of producing cells. *J Immunol Methods*. 1994; 174(1-2):249-257.(Clone-specific: ELISA, Neutralization, Western blot)
Yoshimura T, Yuhki N, Moore SK, Appella E, Lerman MI, Leonard EJ. Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE. *FEBS Lett*. 1989; 244(2):487-493.(Biology)