Technical Data Sheet

Purified Rat Anti-Mouse GM-CSF

Product Information

Material Number:	**554404**
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	MP1-22E9
Immunogen:	Recombinant mouse GM-CSF
Isotype:	Rat IgG2a
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MP1-22E9 antibody reacts with mouse granulocyte/macrophage-colony stimulating factor (GM-CSF). The immunogen used to generate the MP1-22E9 hybridoma was yeast-expressed recombinant mouse GM-CSF. This is a neutralizing antibody.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4° C.

Application Notes

Application

ELISA Capture	Routinely Tested
Intracellular block/flow cytometry	Tested During Development
Neutralization	Tested During Development
Western blot	Reported

Recommended Assay Procedure:

ELISA Capture: The purified MP1-22E9 antibody (Cat. No. 554404) is useful as a capture antibody for a sandwich ELISA for measuring mouse GM-CSF protein levels. Purified MP1-22E9 antibody can be paired with the biotinylated MP1-31G6 (Cat. No. 554407) antibody as the detecting antibody, with recombinant mouse GM-CSF (Cat. No. 554586) as the standard. Purified MP1-22E9 antibody should be titrated 1-4 µg/ml to determine optimal concentration for ELISA capture. To obtain linear standard curves, doubling dilutions of mouse GM-CSF ranging from ~2000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit our web site, www.bdbiosciences.com, and go to the protocols section or the chapter on ELISA in the Immune Function Handbook.

Note 1: This ELISA pair shows no cross-reactivity with any of the cytokines tested (e.g., mouse IL-1ß, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, IL-12 p70, IL-15, IFN-γ, MCP-1, TCA-3, TNF; human IL-1α, IL-1ß, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12 p70, IL-12 p40, IL-13, IL-15, G-CSF, GM-CSF, IFN-γ, lymphotactin, MCP-1, MCP-2, MIP-1α, MIP-1ß, NT-3, PDGF-AA, sCD23 , SCF, TNF, LT-α, VEGF; rat IL-2, IL-4, IL-6, IL-10, GM-CSF, IFN-γ, TNF).

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 measuring GM-CSF in serum or plasma our mouse GM-CSF BD OptEIA™ set (Cat. No. 555167) is specially formulated and recommended.

Western Blot: The MP1-22E9 antibody (Cat. 554404) has been reported to be useful for Western blotting. Please note that this application is not routinely tested at BD Biosciences Pharmingen.

Neutralization: The NA/LE™ MP1-22E9 antibody (Cat. No. 554403) is useful for neutralization of mouse GM-CSF bioactivity.

Immunofluorescent Staining and Flow Cytometric Analysis: The MP1-22E9 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify and enumerate GM-CSF producing cells within mixed cell populations. The PE-conjugated MP1-22E9 antibody (Cat. No. 554406) is especially suitable for these experiments.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554586	GM-CSF Recombinant Mouse	10 µg	(none)
554407	Biotin Rat Anti-Mouse GM-CSF	0.5 mg	MP1-31G6
555167	Mouse GM-CSF ELISA Set	20 tests	(none)
554403	Purified NA/LE Rat Anti-Mouse GM-CSF	25 mg	B27

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/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

Abrams J. Immunoenzymetric assay of mouse and human cytokines using NIP-labeled anti-cytokine antibodies. In: Coligan J, Kruisbeek A, Margulies D, Shevach E, Strober W, ed. *Current Protocols in Immunology.* New York: John Wiley and Sons; 1995:6.20-6.21.(Clone-specific: ELISA)

Abrams JS, Roncarolo MG, Yssel H, Andersson U, Gleich GJ, Silver JE. Strategies of anti-cytokine monoclonal antibody development: immunoassay of IL-10 and IL-5 in clinical samples. *Immunol Rev.* 1992; 127:5-24.(Clone-specific: ELISA, Neutralization)

Nozaki S, Abrams JS, Pearce MK, Sauder DN. Augmentation of granulocyte/macrophage colony-stimulating factor expression by ultraviolet irradiation is mediated by interleukin 1 in Pam 212 keratinocytes. *J Invest Dermatol.* 1991 July; 97(1):10-14.(Clone-specific: ELISA, Neutralization)

Sander B, Hoiden I, Andersson U, Moller E, Abrams JS. Similar frequencies and kinetics of cytokine producing cells in murine peripheral blood and spleen. Cytokine detection by immunoassay and intracellular immunostaining. *J Immunol Methods.* 1993; 166(2):201-214.(Clone-specific: ELISA)

Suda T, O'Garra A, MacNeil I, Fischer M, Bond MW, Zlotnik A. Identification of a novel thymocyte growth-promoting factor derived from B cell lymphomas. *Cell Immunol.* 1990; 129(1):228-240.(Clone-specific: Neutralization)