Technical Data Sheet

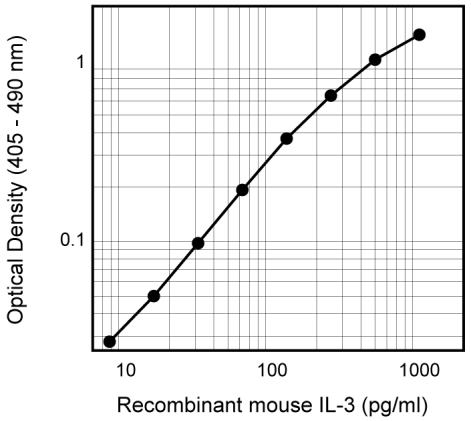
Purified Rat Anti-Mouse IL-3

Product Information

Material Number:	**554381**
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	MP2-8F8
Immunogen:	Recombinant mouse IL-3
Isotype:	Rat IgG1
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MP2-8F8 antibody reacts with mouse interleukin-3 (IL-3). The immunogen used to generate the MP2-8F8 hybridoma was COS-expressed recombinant mouse IL-3. This is a neutralizing antibody.



ELISA standard curve for Mouse IL-3.

Preparation and Storage

Store undiluted at 4°C.

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

Application Notes

Application

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

Recommended Assay Procedure:

ELISA: The purified MP2-8F8 antibody (Cat. No. 554381) is useful for measuring mouse IL-3 protein levels when utilized as a capture antibody in sandwich ELISA. Purified MP2-8F8 antibody can be paired with the biotinylated MP2-43D11 antibody (Cat. No. 554384) as the detecting antibody, with recombinant mouse IL-3 (Cat. No. 554579) as the standard. Purified MP2-8F8 antibody should be titrated 2-6 µg/mL to determine the optimal concentration for ELISA capture. To obtain linear standard curves, doubling dilutions of mouse IL-3 (Cat. No. 554579), ranging from ~2000 to 15 pg/mL, are recommended for inclusion in each ELISA plate. When measuring mouse IL-3 in serum or plasma, investigators are encouraged to utilize BD OptEIA™ Mouse IL-3 Set (Cat. No. 555228).

Note: This ELISA pair has been reported to show no cross-reactivity with the following the cytokines:
Mouse IL-1β, IL-2, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, IL-12 p70, IL-15, GM-CSF, IFN-γ, MCP-1, TCA-3, TNF
Human IL-1α, IL-1β, 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-1β, NT-3, PDGF-AA, sCD23, SCF, TNF, LT-α, VEGF; rat IL-2, IL-4, IL-6, IL-10, GM-CSF, IFN-γ, TNF).

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Neutralization: The NA/LE™ MP2-8F8 antibody (Cat. No. 554379) has been reported to be useful for neutralization of mouse IL-3 bioactivity.

Flow cytometric analysis and blocking control for intracellular staining: The MP2-8F8 antibody is useful for flow cytometric analysis in identifying and enumerating IL-3 producing cells within mixed cell populations. PE-conjugated MP2-8F8 antibody (Cat. No. 554383) is especially suitable for these studies. In addition, purified MP2-8F8 antibody can be used as a blocking control to demonstrate specificity of IL-3 staining by PE-conjugated MP2-8F8 antibody. To perform this control, the fixed/permeabilized cells (~1 million) can be incubated with 1 - 10 µg of unlabeled MP2-8F8 antibody (Cat. No. 554381) for 20 minutes at 4°C, prior to staining with PE-MP2-8F8. The intracellular cytokine staining technique and use of blocking controls are described in detail by C. Prussin and D. Metcalfe.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554384	Biotin Rat Anti-Mouse IL-3	0.5 mg	MP2-43D11
554579	Recombinant Mouse IL-3	10 µg	(none)
555228	Mouse IL-3 ELISA Set	20 plates	(none)
554379	Purified NA/LE Rat Anti-Mouse IL-3	0.5 mg	MP2-8F8
554383	PE Rat Anti-Mouse IL-3	0.1 mg	MP2-8F8

Product Notices

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

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. (Biology: ELISA)

Abrams JS, Pearce MK.. Development of rat anti-mouse interleukin 3 monoclonal antibodies which neutralize bioactivity in vitro. *J Immunol.* 1988; 140(1):131-137. (Biology: ELISA, Neutralization)

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. (Methodology: ELISA, Neutralization)

Cockayne DA, Muchamuel T, Grimaldi JC, et al. Mice deficient for the ecto-nicotinamide adenine dinucleotide glycohydrolase CD38 exhibit altered humoral immune responses. *Blood.* 1998; 92(4):1324-1333. (Biology: ELISA, Neutralization)

Prussin C, Metcalfe DD. Detection of intracytoplasmic cytokine using flow cytometry and directly conjugated anti-cytokine antibodies. *J Immunol Methods.* 1995; 188(1):117-128. (Methodology: IC/FCM Block)

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. (Methodology: ELISA)

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