

Technical Data Sheet

Biotin Rat Anti-Human IL-4

Product Information

Material Number:	554483
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	MP4-25D2
Immunogen:	Purified Recombinant Human IL-4
Isotype:	Rat IgG1
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MP4-25D2 antibody reacts with human interleukin-4 (IL-4). The immunogen used to generate the MP4-25D2 hybridoma was purified recombinant human IL-4. This is a neutralizing antibody. The MP4-25D2 antibody has been reported to cross react with IL-4 from rhesus monkeys. The use of the MP4-25D2 antibody for epitope mapping of human IL-4 has been described.

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
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Recommended Assay Procedure:

ELISA Detection: The biotinylated MP4-25D2 antibody (Cat. No. 554483) is useful as a detection antibody for a sandwich ELISA for measuring human IL-4 protein levels. Biotinylated MP4-25D2 antibody can be paired with the purified 8D4-8 antibody (Cat. No. 554515) as the capture antibody, with recombinant human IL-4 (Cat. No. 554605) as the standard. Biotinylated MP4-25D2 antibody should be titrated (0.5 -2.0 µg/ml) to determine optimal concentration for ELISA detection. To obtain linear standard curves, doubling dilutions of human IL-4 ranging from ~2,000 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: This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems. These ELISA reagents are not recommended for assay of serum or plasma samples. For measuring human IL-4 in serum or plasma our human IL-4 BD OptEIA™ set (Cat. No. 555194) or BD OptEIA kit (Cat. No. 550614) are specially formulated and recommended.

IF/Flow: Directly conjugated MP4-25D2 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify and enumerate IL-4 producing cells within mixed cell populations.

Neutralization: The NA/LE™ MP4-25D2 antibody (Cat. No. 554481) is useful for neutralization of human IL-4 bioactivity. A suitable NA/LE™ rat IgG1 isotype control to match the MP4-25D2 antibody is the R3-34 antibody, Cat. No. 554682.

Suggested Companion Products

Catalog Number	Name	Size	Clone
555194	Human IL-4 ELISA Set	20 tests	(none)
554605	Recombinant Human IL-4	5 µg	(none)
554515	Purified Mouse Anti-Human IL-4	0.5 mg	8D4-8

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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

- 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)
- Chretien I, Van Kimmenade A, Pearce MK, Banchereau J, Abrams JS. Development of polyclonal and monoclonal antibodies for immunoassay and neutralization of human interleukin-4. *J Immunol Methods.* 1989; 117(1):67-71.(Clone-specific: ELISA, Neutralization)
- Jung T, Schauer U, Rieger C, et al. Interleukin-4 and interleukin-5 are rarely co-expressed by human T cells. *Eur J Immunol.* 1995; 25(8):2413-2416. (Clone-specific: Flow cytometry)
- Ramanathan L, Ingram R, Sullivan L, et al. Immunochemical mapping of domains in human interleukin 4 recognized by neutralizing monoclonal antibodies. *Biochemistry.* 1993; 32(14):3549-3556.(Clone-specific: Neutralization)