

Technical Data Sheet

Purified Rat Anti-Mouse IL-4

Product Information

Material Number:	554387
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	BVD4-1D11
Immunogen:	Recombinant Mouse IL-4
Isotype:	Rat IgG2b
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The BVD4-1D11 antibody reacts with mouse interleukin-4 (IL-4). The immunogen used to generate the BVD4-1D11 hybridoma was recombinant mouse IL-4. This is a neutralizing antibody.

This antibody is routinely tested by sandwich ELISA as a capture antibody. Other applications were tested at BD Biosciences Pharmingen during antibody development or reported in the literature.

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
Neutralization	Tested During Development
Western blot	Reported
IC/FCM Block	Reported

Recommended Assay Procedure:

1. ELISA Capture: The purified BVD4-1D11 antibody (Cat. No. 554387) is useful as a capture antibody for a sandwich ELISA for measuring mouse IL-4 protein levels. Purified BVD4-1D11 antibody can be paired with the biotinylated BVD6-24G2 antibody (Cat. No. 554390) as the detecting antibody, with recombinant mouse IL-4 protein (Cat. No. 550067) as the standard. To obtain linear standard curves, doubling dilutions of mouse 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 1: Purified BVD4-1D11 antibody has been found to yield higher background in ELISA than the alternative mouse IL-4 ELISA capture antibody, clone 11B11 (Cat. No. 554434). To overcome this high background, the following procedures specific for clone BVD4-1D11 are recommended:

- 1) Titrate BVD4-1D11 capture antibody (1 - 4 µg/ml) versus biotinylated BVD6-24G2 detection antibody (0.1 - 1.0 µg/ml; i.e. lower than usual detection antibody concentration). Separate blanks must be used for each concentration of biotinylated detection antibody used.
- 2) Use twice the number of usual washes at all steps of ELISA protocol.

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 mouse IL-4 in serum or plasma our mouse IL-4 BD OptEIA™ Set (Cat. No. 555232) is specially formulated and recommended.

Note 3: This ELISA pair shows no cross-reactivity with any of the cytokines tested (e.g., mouse IL-1β, IL-2, IL-3, 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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2. WB: The BVD4-1D11 antibody (Cat. No. 554387) has been reported to be useful for Western blotting. Please note that this application is not routinely tested at BD Biosciences Pharmingen.

3. Neutralization: The NA/LE™ BVD4-1D11 antibody (Cat. No. 554385) is useful for neutralization of mouse IL-4 bioactivity. A suitable NA/LE™ rat IgG2b isotype-matched control is the A95-1 antibody (Cat. No. 556968).

4. Immunofluorescent Staining and Flow Cytometric Analysis: The BVD4-1D11 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify and enumerate IL-4 producing cells within mixed cell populations. The PE- conjugated BVD41D11 (Cat. No. 554389) antibody is especially suitable for these experiments. For specific methodology, please visit our web site, wwwbdbiosciences.com, and go to the protocols section or the chapter on intracellular staining in the Immune Function Handbook.

Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
555232	Interleukin-4 BD™ OptEIA Set	each	(none)
550067	Recombinant mouse IL-4	10 µg	(none)
554390	Biotin Anti-BVD6-24G2	0.5 mg	BVD6-24G2
554434	Purified Rat Anti-Mouse Interleukin-4	0.5 mg	11B11

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to wwwbdbiosciences.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

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