Technical Data Sheet

Purified Mouse Anti-Rat CD4

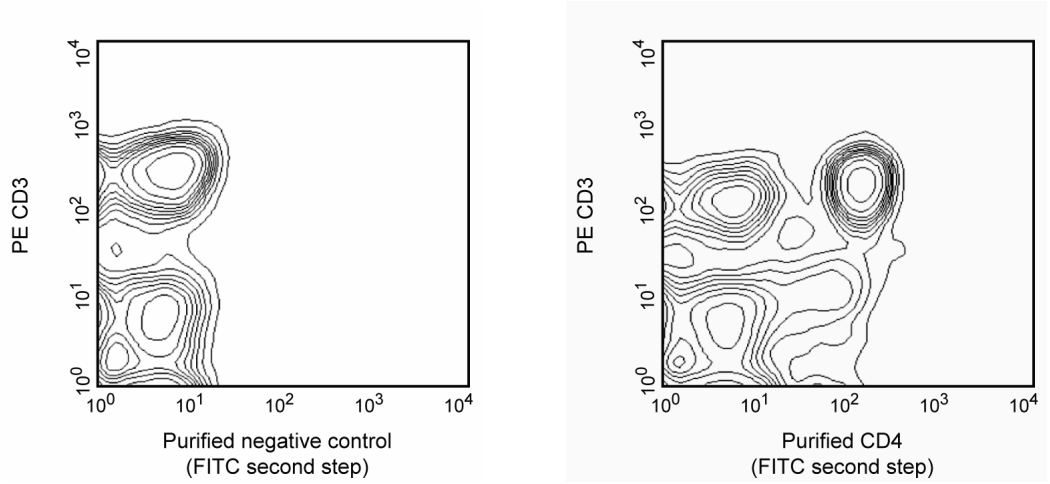
Product Information

Material Number:	**554841**
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	OX-38
Immunogen:	Rat thymocyte glycoproteins
Isotype:	Mouse (BALB/c) IgG2a, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The OX-38 antibody has been reported to react with the CD4 antigen on most thymocytes, a subpopulation of mature T lymphocytes (i.e., MHC class II-restricted T cells, including most T helper cells), monocytes, macrophages, and some dendritic cells. CD4 is an antigen coreceptor on the T-cell surface which interacts with MHC class II molecules on antigen-presenting cells. It participates in T-cell activation through its association with the T-cell receptor complex and protein tyrosine kinase lck. The OX-38 antibody has been reported to bind to the same epitope of CD4 as that recognized by W3/25 mAb, which is a different epitope than that recognized by OX-35 mAb (Cat. No. 554837). In vivo blocking of some cell-mediated immune responses by mAb OX-38 has been reported. Injection of OX-38 mAb induces allograft unresponsiveness in rats, with varying results depending on the rat strain used (high or low responder). Furthermore, in vivo depletion of CD4+ lymphocytes has been reported with this antibody.

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



Two-color analysis of the expression of CD4 on rat splenocytes. *Lewis splenocytes were incubated simultaneously with PE-conjugated anti-rat CD3 G4.18 (Cat. No. 554833) and purified OX-38 (right panel), followed by FITC anti-mouse IgG2a R19-15 (Cat. No. 553390) monoclonal antibodies. The CD3-negative CD4-dim cells are the monocyte/macrophage population. Flow cytometry was performed on a BD FACScan™ flow cytometry system.*

Preparation and Storage

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

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Application Notes

Application

Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Immunoprecipitation	Reported
Blocking	Reported
Depletion	Reported

Recommended Assay Procedure:

Caution: Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also effect the results of functional studies, we recommend the NA/LE™ (No Azide/Low Endotoxin) antibody format for in vitro and in vivo use.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553454	Purified Mouse IgG2a κ Isotype Control	0.5 mg	G155-178
550297	Purified Mouse Anti-Rat CD4	1.0 ml	OX-38
553390	FITC Anti-Mouse IgG2a	0.5 mg	R19-15
554833	PE Mouse Anti-Rat CD3	0.2 mg	G4.18

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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharmingen/colors.

References

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