Technical Data Sheet

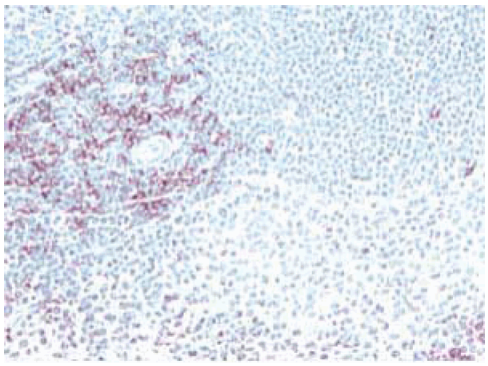
Purified Mouse Anti-Rat CD4

Product Information

Material Number:	**550297**
Size:	1.0 ml
Concentration:	125 µg/ml
Clone:	OX-38
Immunogen:	Rat thymocyte glycoproteins
Isotype:	Mouse (BALB/c) IgG2a, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing BSA, goat serum, and ≤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.



Immunohistochemical staining of rat CD4 + T lymphocytes. *Frozen sections of normal rat spleen were stained with Purified Mouse Anti-Rat CD4 antibody (Cat. No. 550297). CD4+ T lymphocytes can be identified by the intense brown labeling of their cell surface membranes. Amplification 20X.*

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

Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Immunohistochemistry-formalin (antigen retrieval required)	Not Recommended

Recommended Assay Procedure:

Immunohistochemistry: Clone OX-38 is tested for immunohistochemical staining of acetone-fixed frozen sections of rat spleen or thymus. IHC of formalin-fixed paraffin embedded sections is not recommended. This antibody has been reported to stain the CD4 subset of T lymphocytes. The isotype control recommended for use with this antibody is purified mouse IgG2a (Cat. No. 550339). For optimal indirect immunohistochemical staining, the OX-38 antibody should be titrated (1:10 to 1:50 dilution) and visualized via a three-step staining procedure in combination with biotin conjugated rat anti-mouse IgG2a (Cat. No. 550332) as the secondary antibody and Streptavidin-HRP (Cat. No. 550946) together with the DAB detection system (Cat. No. 550880).

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Suggested Companion Products

Catalog Number	Name	Size	Clone
550880	DAB Substrate Kit	500 tests	(none)
550946	Streptavidin HRP	50 ml	(none)
550339	Purified Mouse IgG2a κ Isotype Control	1.0 ml	C1.18.4
550332	Biotin Rat Anti-Mouse IgG2a	1.0 ml	R19-15
550296	Purified Mouse Anti-Rat CD4	1.0 ml	OX-35
554835	Purified Mouse Anti-Rat CD4	0.5 mg	OX-35

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. An isotype control should be used at the same concentration as the antibody of interest.
5. 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 affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
6. This antibody has been developed for the immunohistochemistry application. However, a routine immunohistochemistry test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance.
7. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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