

Technical Data Sheet

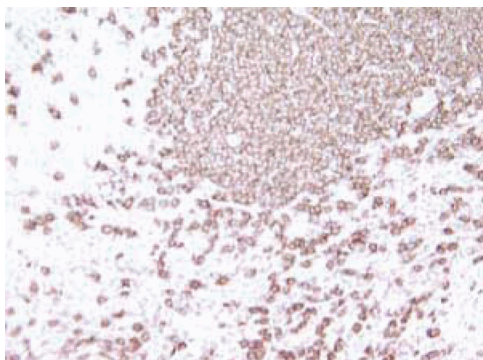
Purified Hamster Anti-Mouse CD3e

Product Information

Material Number:	550277
Alternate Name:	CD3ε chain
Size:	1.0 ml
Concentration:	62.5 µg/ml
Clone:	500A2
Immunogen:	Mouse T-cell receptor
Isotype:	Syrian Hamster IgG2, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium azide.

Description

This antibody has been reported to react with the 25-kDa ε chain of the T-cell receptor-associated CD3 complex expressed on thymocytes, mature T lymphocytes, and NK-T cells on many mouse stains. Plate-bound and soluble hamster anti-mouse CD3e (clone 500A2) antibody has been reported to activate unprimed T cells in vitro. Activation of a mouse T-cell clone by soluble hamster anti-mouse CD3e (clone 500A2) can be blocked by Fab fragments of anti-CD4 antibody GK1.5, suggesting that the hamster anti-mouse CD3e (clone 500A2) antibody may bind an epitope of CD3e close to a site at which CD4 associates with the T-cell receptor. This hamster mAb to a mouse leukocyte antigen has been reported not to cross-react with rat leukocytes.

**Immunohistochemical staining of T lymphocytes.**

A frozen section from mouse spleen was stained with the Hamster Anti-Mouse CD3e (Cat. No. 550277) antibody. T lymphocytes can be identified by the intense brown labeling of their cell surface membranes (20X magnification).

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-paraffin	Not Recommended

Recommended Assay Procedure:

Immunohistochemistry: For optimal indirect immunohistochemical staining, this antibody should be titrated (e.g. suggested starting dilutions of 1:10 to 1:50) and visualized via a three step staining procedure in combination with a Biotin Mouse Anti-Hamster IgG2 antibody (Cat. No. 554029) as the secondary antibody and Streptavidin-HRP (Cat. No. 550946) together with the DAB detection system (Cat. No. 550880).

Investigators should note that this antibody is not recommended for paraffin-embedded sections.

Suggested Companion Products

Catalog Number	Name	Size	Clone
550345	Purified Hamster IgG2, λ1 Isotype Control	1.0 ml	Ha4/8
550946	Streptavidin HRP	50 ml	(none)
550880	DAB Substrate Kit	500 tests	(none)
554029	Biotin Mouse Anti-Syrian Hamster IgG2	0.5 mg	G192-3

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.
5. An isotype control should be used at the same concentration as the antibody of interest.
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

Allison JP, Havran WL, Poenie M, et al. Expression and function of CD3 on murine thymocytes. In: Kappler J, Davis M, ed. *The T-Cell Receptor, UCLA Symposia, 73rd Edition*. Los Angeles: 1988:33-45. (Immunogen: (Co)-stimulation, Immunoprecipitation)

Havran WL, Poenie M, Kimura J, Tsien R, Weiss A, Allison JP. Expression and function of the CD3-antigen receptor on murine CD4+8+ thymocytes. *Nature*. 1987; 330(6144):170-173. (Biology: (Co)-stimulation, Immunohistochemistry)

Portoles P, Rojo J, Golby A, et al. Monoclonal antibodies to murine CD3 epsilon define distinct epitopes, one of which may interact with CD4 during T cell activation. *J Immunol*. 1989; 142(12):4169-4175. (Biology)

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