

Technical Data Sheet

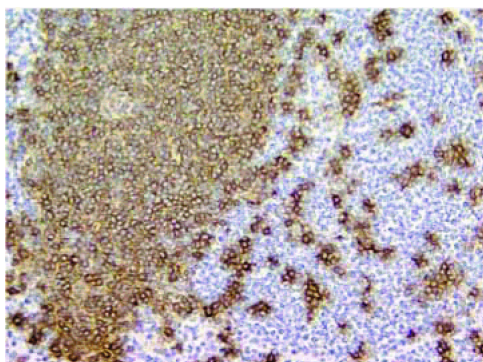
Purified Rat Anti-Mouse CD90.2

Product Information

Material Number:	550543
Alternate Name:	Thy-1.2; T25; Thymus cell antigen 1, theta
Size:	1.0 ml
Concentration:	62.5 µg/ml
Clone:	53-2.1
Immunogen:	Mouse Thymus / Spleen
Isotype:	Rat (LOU) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium azide.

Description

The 53-2.1 monoclonal antibody specifically binds to the CD90.2 (Thy-1.2) alloantigen on thymocytes, most peripheral T lymphocytes, some intraepithelial T lymphocytes (IEL, DEC), epithelial cells, fibroblasts, neurons, hematopoietic stem cells, but not B lymphocytes, of most mouse strains. The 53-2.1 antibody has been reported not to crossreact with Thy-1.1 (e.g., AKR/J, PL), or with rat Thy-1. CD90 is a glycosylphosphatidylinositol-anchored membrane glycoprotein of the Ig superfamily that is involved in signal transduction. In addition, there is evidence that CD90 mediates adhesion of thymocytes to thymic stroma. The 53-2.1 antibody has been reported to block the binding of anti-mouse CD90.2 clone 30-H12 (Cat. No. 553009) to immobilized thymocyte membranes.



Immunohistochemical staining of Thy-1.2. Frozen sections of normal mouse spleen were stained with the anti-CD90.2 antibody. Cells expressing CD90.2 can be identified by the brown labeling of their cell 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 53-2.1 is recommended to test for immunohistochemical staining of acetone-fixed frozen sections of mouse spleen or thymus. The isotype control recommended for use with this antibody is purified rat IgG2a (Cat. No. 559073). For optimal indirect immunohistochemical staining, the 53-2.1 antibody should be titrated (1:10 to 1:50 dilution) and visualized via a three step staining procedure in combination with biotinylated polyclonal anti-rat Ig (Cat.No. 559286) as the secondary antibody and streptavidin-HRP (Cat.No. 550946) together with the DAB detection system (Cat.No. 550880). More conveniently, the anti-rat Ig HRP detection kit (Cat. No. 551013) can be used which contains the biotinylated secondary antibody, the antibody diluent, Streptavidin-HRP and a DAB substrate for use in the staining procedure.

Suggested Companion Products

Catalog Number	Name	Size	Clone
559073	Purified Rat IgG2a κ Isotype Control	0.25 mg	R35-95
551013	Anti-Rat Ig HRP Detection Kit	200 tests	(none)
553009	Purified Rat Anti-Mouse CD90.2	0.5 mg	30-H12

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550880	DAB Substrate Kit	500 tests	(none)
550946	Streptavidin HRP	50 ml	(none)
559286	Biotin Goat Anti-Rat Ig	0.5 mg	Polyclonal
559148	Antibody Diluent for IHC	125 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. 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.
6. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

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