Technical Data Sheet

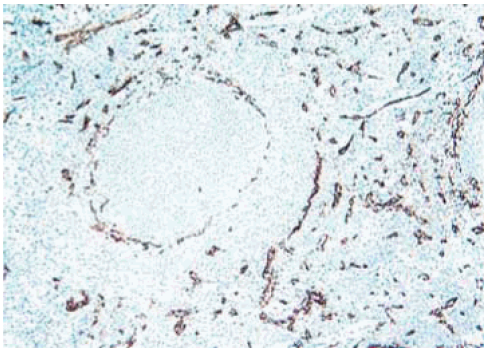
Purified Rat Anti-Mouse Panendothelial Cell Antigen

Product Information

Material Number:	**550563**
Alternate Name:	Plvap; Pv1; MECA32; Plasmalemma vesicle-associated protein
Size:	1.0 ml
Concentration:	31.25 µg/ml
Clone:	MECA-32
Immunogen:	Mouse lymph node stromal cells
Isotype:	Rat IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium azide.

Description

The MECA-32 antibody reacts with a dimer of 50-55-kDa subunits expressed on most or all endothelial cells in the embryonic and adult mouse, with the exception of cardiac and skeletal muscle and the brain. Normally in skeletal and cardiac muscle, MECA-32 antigen expression is limited to small arterioles and venules; however, under conditions of inflammation, it can be induced on previously non-expressing vessels in cardiac muscle. In the central nervous system (CNS), the panendothelial cell antigen expression is developmentally regulated. During embryonic development, the antigen is found on brain vasculature up to day 16 of gestation, after which it disappears. The cessation of MECA-32 antigen expression in the CNS may be associated with the establishment of the blood-brain barrier, which begins on day 16 of gestation. In the adult mouse, inflammation in the CNS can lead to re-expression of the panendothelial cell antigen.



Immunohistochemical staining of mouse Panendothelial cell antigen: *Frozen sections of normal mouse small intestine were reacted with the anti-panendothelial cell antigen monoclonal antibody. Cells expressing this molecule 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-paraffin	Not Recommended

Recommended Assay Procedure:

Immunohistochemistry: The MECA-32 antibody specific for mouse panendothelial cell antigen is recommended to test for immunohistochemical staining of acetone-fixed frozen sections. Tissues tested were mouse spleen, thymus and small intestine. The antibody stains endothelial cells. The isotype control recommended for use with this antibody is purified rat IgG2a (Cat. No. 559073). For optimal indirect immunohistochemical staining, the MECA-32 antibody should be titrated (1:10 to 1:50 dilution) and visualized via a three-step staining procedure in combination with polyclonal, biotin conjugated anti-rat Igs (multiple adsorbed) (Cat. No. 559286) as the secondary antibody and Streptavidin-HRP (Cat. No. 550946) together with the DAB detection system (Cat. No. 550880). A detailed protocol of the immunohistochemical procedure is available on our website: **www.bdbiosciences.com/support/resources**.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
559286	Biotin Goat Anti-Rat Ig	0.5 mg	Polyclonal
559073	Purified Rat IgG2a κ Isotype Control	0.25 mg	R35-95
550880	DAB Substrate Kit	500 tests	(none)
550946	Streptavidin HRP	50 ml	(none)
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/pharmingen/protocols for technical protocols.

References

Bergese SD, Pelletier RP, Ohye RG, Vallera DA, Orosz CG. Treatment of mice with anti-CD3 mAb induces endothelial vascular cell adhesion molecule-1 expression. *Transplantation.* 1994; 57(5):711-717. (Biology)

Engelhardt B, Conley FK, Butcher EC. Cell adhesion molecules on vessels during inflammation in the mouse central nervous system. *J Neuroimmunol.* 1994; 51(2):199-208. (Biology)

Hallmann R, Mayer DN, Berg EL, Broermann R, Butcher EC. Novel mouse endothelial cell surface marker is suppressed during differentiation of the blood brain barrier. *Dev Dyn.* 1995; 202(4):325-332. (Biology)

Leppink DM, Bishop DK, Sedmak DD, et al. Inducible expression of an endothelial cell antigen on murine myocardial vasculature in association with interstitial cellular infiltration. *Transplantation.* 1989; 48(5):874-877. (Immunogen)

Orosz CG, van Buskirk A, Sedmak DD, Kincade P, Miyake K, Pelletier RP. Role of the endothelial adhesion molecule VCAM in murine cardiac allograft rejection. *Immunol Lett.* 1992; 32(1):7-12. (Biology)

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