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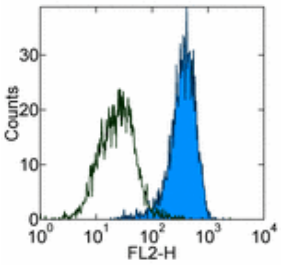
Product Information

Contents: Affinity Purified anti-mouse CD140b (PDGFRβ)
Catalog Number: 14-1402
Sizes: 50 ug, 100 ug
Formulation: Phosphate buffer pH 7.2, 150 mM NaCl, 0.09% NaN_3
Storage Conditions: Store at 4°C. Avoid repeated freeze/thaw cycles.
Clone: APB5
Isotype: Rat IgG2a, κ



Staining of NIH-3T3 cells with 0.5 µg of Purified Rat IgG2a Iso Cntrl (cat. 14-4321) (open histogram) or 0.5 µg of Purified APB5 (colored histogram) followed by Biotin Anti-Rat IgG (cat. 13-4813)and Streptavidin-PE (cat. 12-4312). Total viable cells were used for analysis.

Available Formats of This Product

Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
13-1402	Biotin anti-mouse CD140b (PDGFRb)	N/A	N/A	FC
14-1402	Affinity Purified anti-mouse CD140b (PDGFRb)	N/A	N/A	FA FC IH/F WB
16-1402	Functional Grade* Purified anti-mouse CD140b (PDGFRb)	N/A	N/A	FA FC

*Functional Grade™ (FG™): Azide-free, sterile-filtered, and endotoxin < 0.001 ng/µg.
Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

Description

The APB5 monoclonal antibody reacts with the mouse CD140b molecule, the β chain of the platelet derived growth factor receptor (PDGF receptor). PDGFRb is a receptor tyrosine kinase that forms dimers on the surface upon ligand binding and phosphorylates substrates. Dimers of PDGFR consist of either homodimers of α/α, β/β, or heterodimers of α/β and serve as a substrate for its kinase activity. CD140b is expressed by embryonic tissues and mesenchymal-derived cells of the adult mouse tissues. The PDGFR β chain is reported to play a significant role in formation of fibrous atherosclerotic lesions.

Usage

For research use only, not for diagnostic or therapeutic use. The APB5 antibody has been reported for use in flow cytometric analysis, immunoblotting (WB), and immunohistochemical staining of frozen tissue sections. It has also been reported in blocking of ligand binding. (Please use Functional Grade purified APB5, cat. 16-1402, in functional assays.)

Applications Tested

The APB5 antibody has been tested by flow cytometric analysis of NIH-3T3 cells. This can be used at less than or equal to 1 µg per million cells in a 100 µl total staining volume. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Related Products

Cat. 16-1402 Functional Grade Purified anti-mouse CD140b (PDGFRb) (clone APB5)
Cat. 11-4317 Streptavidin-FITC (Fluorescein isothiocyanate)
Cat. 12-4317 Streptavidin-PE (Phycoerythrin)
Cat. 17-4317 Streptavidin Allophycocyanin (SA-APC)
Cat. 14-4321 Affinity Purified Rat IgG2a Isotype Control
Cat. 11-4811 FITC Anti-Rat IgG
Cat. 13-4813 Biotin Anti-Rat IgG (clone Polyclonal)

References

Sano, H., T. Sudo, et al. 2001. Functional blockade of platelet-derived growth factor receptor-beta but not of receptor-alpha prevents vascular smooth muscle cell accumulation in fibrous cap lesions in apolipoprotein E-deficient mice. Circulation 103(24): 2955-60.

Takakura, N., H. Yoshida, et al. 1997. PDGFR alpha expression during mouse embryogenesis: immunolocalization analyzed by whole-mount immunohistostaining using the monoclonal anti-mouse PDGFR alpha antibody APA5. J Histochem Cytochem 45(6): 883-93.