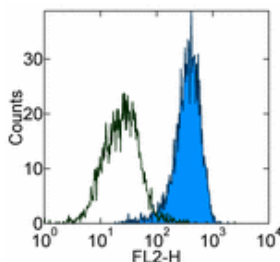


## Anti-Mouse CD140b (PDGF Receptor b) Purified

Catalog Number: 14-1402

Also Known As: PDGFRbeta, PDGFR-beta, PDGFR beta, PDGFR b, PDGFR-b

RUO: For Research Use Only



Staining of NIH/3T3 cell line with 0.5 µg of Rat IgG2a κ Isotype Control Purified (cat. 14-4321) (open histogram) or 0.5 µg of Anti-Mouse CD140b (PDGF Receptor b) Purified (filled histogram) followed by Anti-Rat IgG Biotin (cat. 13-4813) and Streptavidin PE (cat. 12-4317). Total viable cells were used for analysis.

### Product Information

Contents: Anti-Mouse CD140b (PDGF Receptor b) Purified


**REF** Catalog Number: 14-1402

Clone: APB5

Concentration: 0.5 mg/ml


Host/Isotype: Rat IgG2a, κ

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 Temperature Limitation: Store at 2-8°C.

**LOT** Batch Code: Refer to Vial

 Use By: Refer to Vial

 Caution, contains Azide

### Description

The APB5 monoclonal antibody reacts with the mouse CD140b molecule, the β chain of the platelet derived growth factor receptor (PDGF receptor). PDGFRβ 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.

### Applications Reported

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 test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

### 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.

Sano H, Yokode M, Takakura N, Takemura G, Doi T, Kataoka H, Sudo T, Nishikawa S, Fujiwara H, Nishikawa SI, and Kita S. (2001) Study on PDGF Receptor β Pathway in Glomerular Formation in Neonate Mice *Annals of the New York Academy of Sciences* 947:303-305 (FA)

### Related Products

11-4317 Streptavidin FITC

11-4811 Anti-Rat IgG FITC

12-4317 Streptavidin PE

13-4813 Anti-Rat IgG Biotin (Polyclonal)

14-4321 Rat IgG2a K Isotype Control Purified

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