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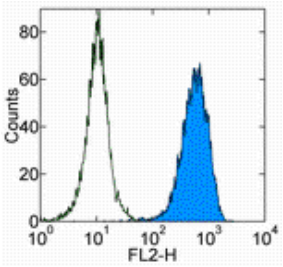
# Anti-Mouse CD140b (PDGF Receptor b) Functional Grade Purified

**Catalog Number:** 16-1402
**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 Functional Grade Purified (cat. 16-4321) (open histogram) or 0.5 µg of Anti-Mouse CD140b (PDGF Receptor b) Functional Grade 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) Functional Grade Purified
REF **Catalog Number:** 16-1402
**Clone:** APB5
**Concentration:** 1 mg/ml
**Host/Isotype:** Rat IgG2a, κ
**Handling Conditions:** Use in sterile environment.
**Endotoxin Level:** Less than 0.001 ng/ug antibody, as determined by the LAL assay.

**Formulation:** aqueous buffer, no sodium azide
**Temperature Limitation:** Store at 2-8°C.
LOT **Batch Code:** Refer to Vial
**Use By:** Refer to Vial

## 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.

## Applications Reported

The APB5 antibody has been reported for use in flow cytometric analysis. It has also been reported in blocking of ligand binding.

## 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 $10^5$ to $10^8$ 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 ß 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)

16-4321 Rat IgG2a K Isotype Control Functional Grade Purified
17-4317 Streptavidin APC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