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Product Data Sheet

APC anti-human CD140b (PDGFRβ)

Catalog # / Size: 323608 / 100 tests

Clone: 18A2

Isotype: Mouse IgG1, κ

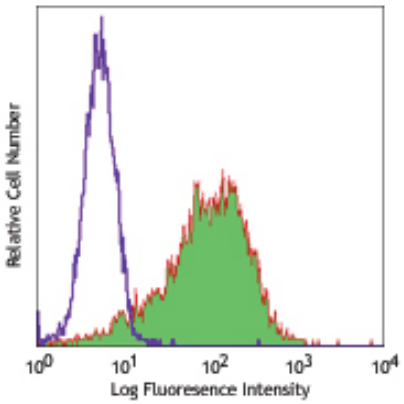
Immunogen: NIH-3T3 cells transfected with human PDGFRbeta

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human PDGFRB transfected cells stained with 18A2 APC

Applications:

Applications: FC - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 µl to 5 µl per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Read more at www.biolegend.com/testsize regarding the test size change.

Application Notes: The 18A2 monclonal antibody recognizes human CD140b also known as the platelet-derived growth factor receptor, beta polypeptide, PDGFR1, and PDGFRβ. It has been shown to be useful for flow cytometric detection of CD140b.

Application References:
1. Vogel W, *et al.* 2002. *Haematologica* 88:126.

Description: CD140b is a cell surface tyrosine kinase receptor for members of the platelet-derived growth factor family. The identity of the growth factor bound to the receptor determines whether the functional receptor is a homodimer or heterodimer composed of both PDGFR-α and -β. CD140b contains two immunoglobulin-like domains and a tyrosine kinase domain with a predicted molecular weight approximately 124 kD. CD140b is widely expressed on a variety of mesenchymal-derived cells and is preferentially expressed on some tumors such as medulloblastoma. Binding of B-chain containing PDGF molecules can stimulate cell proliferation. CD140b has been shown to interact with a number of kinases (including Raf-1, NCK1, FAK, Fyn, others) as well as adaptor molecules and signaling intermediates (Crk, Grb2, Grb4, RasGAP, SHP2, SHC1, others), and has also been shown to associate with integrin β3 and nexin sorting molecules. CD140b has been implicated in several disease states including atherogenesis and oncogenesis. The PDGFRβ is heavily phosphorylated on numerous tyrosine residues through both autophosphorylation and ligand-dependent processes.

Antigen References:
1. Claesson-Welsh L, *et al.* 1988. *Mol. Cell Biol.* 8:3476.
2. Gronwald RG, *et al.* 1988. *Proc. Natl. Acad. Sci. USA* 85:3435.
3. Gilbertson DG, *et al.* 2001. *J. Biol. Chem.*276:27406.
4. Seifert RA, *et al.* 1989. *J. Biol. Chem.* 264:8771.
5. Kanakaraj P, *et al.* 1991. *Biochemistry* 30:1761.

Related Products:

Product	Clone	Application
Cell Staining Buffer		FC, ICC, ICFC
APC Mouse IgG1, κ Isotype Ctrl (FC)	MOPC-21	FC
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC

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