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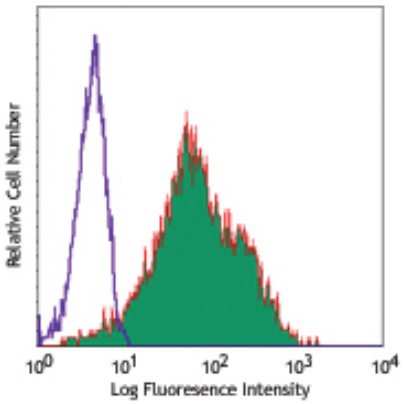
Product Data Sheet

Biotin anti-human CD140b (PDGFRβ)

Catalog # / Size: 323604 / 100 µg
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 biotin under optimal conditions. The solution is free of unconjugated biotin.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration: 0.5 mg/ml
Storage: The antibody solution should be stored undiluted at 4°C. **Do not freeze.**



Human PDGFRB transfected cells stained with biotinylated 18A2, followed by Sav-PE

Applications:

Applications: FC - *Quality tested*
Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤2.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
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
Biotin Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC
APC Streptavidin		FC, ICFC
PE Streptavidin		FC, ICFC
PE/Cy5 Streptavidin		FC, ICFC
PE/Cy7 Streptavidin		FC, ICFC
Cell Staining Buffer		FC, ICC, ICFC
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC

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