

# Product Data Sheet

## PE anti-human CD140b (PDGFRβ)

**Catalog # / Size:** 323605 / 25 tests  
323606 / 100 tests

**Clone:** 18A2

**Isotype:** Mouse IgG1, κ

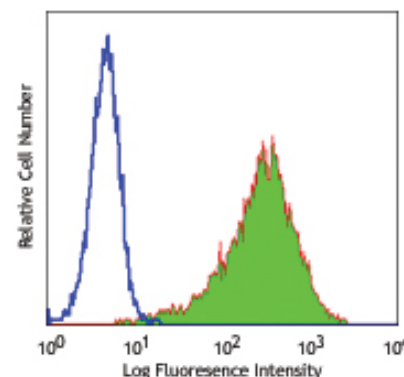
**Immunogen:** NIH-3T3 cells transfected with human PDGFRβ

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE 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 PDGFRβ transfected cells  
stained with purified 18A2 PE

## 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](http://www.biolegend.com/testsize) regarding the test size change.

**Application Notes:** The 18A2 monoclonal 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**  
Cell Staining Buffer  
PE Mouse IgG1, κ Isotype Ctrl (FC)  
Human TruStain FcX™ (Fc Receptor Blocking Solution)

**Clone**  
MOPC-21

**Application**  
FC, ICC, ICFC  
FC  
FC, ICC, ICFC



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