Technical Data Sheet

Purified Mouse Anti-Human CD140b

Product Information

Material Number:	**610113**
Alternate Name:	PDGF Receptor β
Size:	50 µg
Concentration:	250 µg/ml
Clone:	28/CD140b
Immunogen:	Human PDGF Receptor β aa. 1-187
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Human
Target MW:	180 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Platelet-derived growth factor (PDGF) is a potent mitogen for cells of esenchymal origin and exerts its effects by binding to the PDGF receptor (PDGFR), a transmembrane protein tyrosine kinase. Both PDGF and PDGFR consist of subunits that form homo- or heterodimers with varying specificities: PDGF-AA binds only to αα PDGFR, PDGF-AB binds to both αα and αβ PDGFR, and PDGF-BB binds to all three PDGFRs. Ligand binding induces phosphorylation and activation of the receptor and, in turn, initiation of an intracellular phosphorylation cascade. PDGFR localizes primarily to membrane invaginations termed caveolae, compartments that are enriched in several of its downstream effectors, including PI3 kinase, Shc, NCK, and PTP1D. Additionally, the β subunit of PDGFR has been implicated in cellular transformation. This effect is mediated by a C-terminal region of PDGFRβ and depends on pathways that involve either PLCβ or PI3 kinase.

Western blot analysis of CD140b on a Hs68 cell lysate (Human skin fibroblasts; ATCC CRL-1635). *Lane 1: 1:50, lane 2: 1:100, lane 3: 1:200 dilution of the mouse anti-CD140b antibody. CD140b (PDGF Receptor β) may be observable as a band migrating at ~ 180 kDa.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development
Immunoprecipitation	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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Liu P, Ying Y, Ko YG, Anderson RG. Localization of platelet-derived growth factor-stimulated phosphorylation cascade to caveolae. *J Biol Chem.* 1996; 271(17):10299-10303.(Biology)

Mahboubi K, Pober JS. Activation of signal transducer and activator of transcription 1 (STAT1) is not sufficient for the induction of STAT1-dependent genes in endothelial cells. Comparison of interferon-gamma and oncostatin M. *J Biol Chem.* 2002; 277(10):8012-8021.(Biology: Immunofluorescence, Western blot)

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