

Datasheet for ABIN967592

## anti-PDGFRB antibody (pTyr857)



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### Overview

Quantity:	0.1 mg
Target:	PDGFRB
Binding Specificity:	pTyr857
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PDGFRB antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Formalin-fixed Sections) (IHC (f))

### Product Details

Brand:	BD Pharmingen™
Immunogen:	Phosphorylated Human PDGFRbeta
Clone:	J24-425
Isotype:	IgG1 kappa
Cross-Reactivity:	Mouse (Murine)
Characteristics:	<ol style="list-style-type: none"> <li>1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li> <li>2. Please refer to us for technical protocols.</li> <li>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.</li> </ol>

## Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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## Target Details

Target:	PDGFRB
Alternative Name:	CD140b ( <a href="#">PDGFRB Products</a> )
Background:	<p>Platelet-derived growth factor (PDGF) is a potent mitogen for cells of mesenchymal origin and exerts its effects by binding to the PDGF receptor (PDGFR), a transmembrane protein tyrosine kinase. PDGFR is composed of PDGFRalpha (CD140a) and/or PDGFRbeta (CD140b) polypeptides. Both PDGF and PDGFR consist of subunits that form homo- or heterodimers with varying specificities: PDGF-AA binds only to alphaalpha PDGFR, PDGF-AB binds to both alphaalpha and alphabeta PDGFR, and PDGF-BB binds to all three PDGFRs. Ligand binding induces dimerization and activation of the receptor. Upon activation, CD140b is phosphorylated at multiple tyrosine sites and, in turn, an intracellular phosphorylation cascade is initiated. PDGFR localizes primarily to membrane invaginations termed caveolae, compartments that are enriched in several of its downstream effectors, including phosphatidylinositol 3'-kinase, Src, and phospholipase C-gamma.</p> <p>The J24-425 monoclonal antibody recognizes the phosphorylated tyrosine 857 (pY857) in the tyrosine kinase domain 2 of CD140b, which is required for maximal receptor kinase activity. The orthologous phosphorylation site in mouse PDGFRbeta is Y856.</p>
Molecular Weight:	180 kDa
Pathways:	<a href="#">Fc-epsilon Receptor Signaling Pathway</a> , <a href="#">EGFR Signaling Pathway</a> , <a href="#">Neurotrophin Signaling Pathway</a> , <a href="#">Inositol Metabolic Process</a> , <a href="#">Glycosaminoglycan Metabolic Process</a> , <a href="#">Smooth Muscle Cell Migration</a> , <a href="#">Platelet-derived growth Factor Receptor Signaling</a>

## Application Details

Comment:	Related Products: <a href="#">ABIN967389</a>
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Concentration:	0.5 mg/mL

## Handling

Buffer:	Aqueous buffered solution containing $\leq 0.09$ % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

## Publications

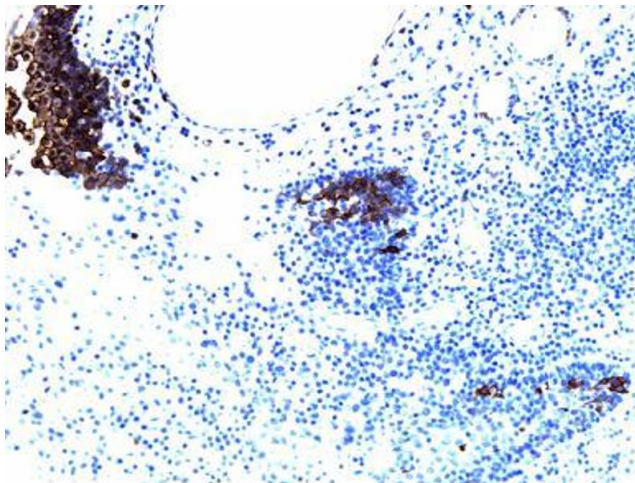
Product cited in:

Chiarugi, Cirri, Taddei, Giannoni, Fiaschi, Buricchi, Camici, Raugei, Ramponi: "Insight into the role of low molecular weight phosphotyrosine phosphatase (LMW-PTP) on platelet-derived growth factor receptor (PDGF-r) signaling. LMW-PTP controls PDGF-r kinase activity through TYR-857 dephosphorylation." in: **The Journal of biological chemistry**, Vol. 277, Issue 40, pp. 37331-8, (2002) ([PubMed](#)).

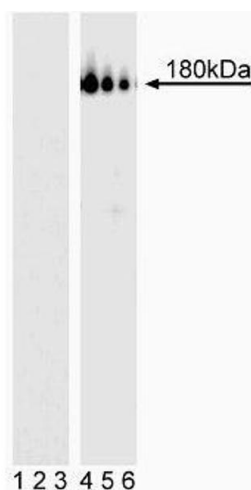
Baxter, Secrist, Vaillancourt, Kazlauskas: "Full activation of the platelet-derived growth factor beta-receptor kinase involves multiple events." in: **The Journal of biological chemistry**, Vol. 273, Issue 27, pp. 17050-5, (1998) ([PubMed](#)).

Liu, Oh, Horner, Rogers, Schnitzer: "Organized endothelial cell surface signal transduction in caveolae distinct from glycosylphosphatidylinositol-anchored protein microdomains." in: **The Journal of biological chemistry**, Vol. 272, Issue 11, pp. 7211-22, (1997) ([PubMed](#)).

Claesson-Welsh: "Platelet-derived growth factor receptor signals." in: **The Journal of biological chemistry**, Vol. 269, Issue 51, pp. 32023-6, (1995) ([PubMed](#)).



**Image 1.** PDGFRbeta (pY857) staining on tonsil. Fresh human tonsil was incubated in 5 mM Pervanadate solution for 2 hours, then fixed in formalin and processed. Following antigen retrieval with BD Retrieval A buffer, the sections were either left untreated (First Panel) or treated with a phosphatase to eliminate all phosphorylation (Second Panel). The tissue sections were stained with purified Mouse anti-PDGFRbeta (CD140b) (pY857) with Hematoxylin counterstaining. Original magnification: 20X.



### Western Blotting

**Image 2.** Western blot analysis of PDGFRbeta (pY857). Lysates from control (lanes 1-3) and PDGF-treated (lanes 4-6) NIH/3T3 mouse embryonic fibroblasts were probed with purified mouse anti-PDGFRbeta (CD140b) (pY857) at concentrations of 0.25, 0.125, and 0.0625  $\mu\text{g/ml}$  (lanes 1 and 4, 2 and 5, and 3 and 6, respectively). PDGFRbeta (pY857) is identified as a band of 180 kDa in the treated cells.



**Image 3.** Cells treated with a phosphatase to eliminate all phosphorylation

Please check the [product details](#) page for more images. Overall 4 images are available for ABIN967592.