

CD140b (PDGFRB) Monoclonal Antibody (APB5), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Fish, Human, Mouse
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	APB5
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_467493

Applications	Tested Dilution	Publications
Western Blot (WB)	-	5 Publications
Immunohistochemistry (IHC)	-	63 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	13 Publications
Immunocytochemistry (ICC/IF)	-	23 Publications
Flow Cytometry (Flow)	1 µg/test	16 Publications
ELISA (ELISA)	-	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

Description: The APB5 monoclonal antibody reacts with the mouse CD140b molecule, the beta chain of the platelet derived growth factor receptor (PDGF receptor). PDGFRb is a receptor tyrosine kinase that forms dimers on the surface upon ligand binding and phosphorylates substrates. Dimers of PDGFR consist of either homodimers of alpha/alpha, beta/beta, or heterodimers of alpha/beta and serve as a substrate for its kinase activity. CD140b is expressed by embryonic tissues and mesenchymal-derived cells of the adult mouse tissues. The PDGFR beta chain is reported to play a significant role in formation of fibrous atherosclerotic lesions.

Applications Reported: The APB5 antibody has been reported for use in flow cytometric analysis and immunohistochemical staining of frozen tissue sections. It has also been reported in blocking of ligand binding. (Please use Functional Grade purified APB5, cat. 16-1402, in functional assays.)

Applications Tested: The APB5 antibody has been tested by flow cytometric analysis of NIH/3T3 cells. This can be used at less

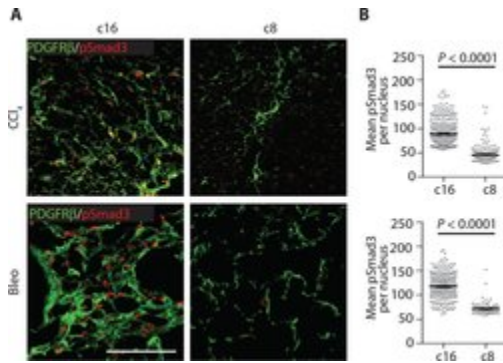
than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

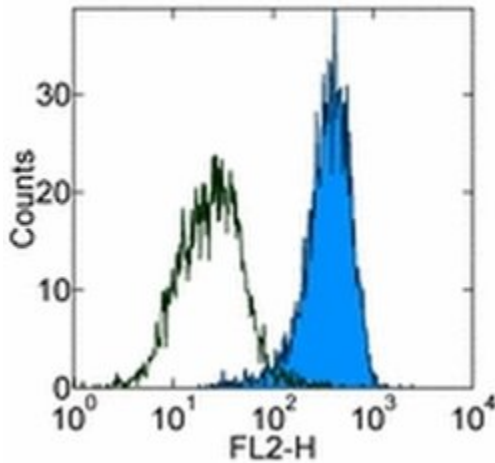
Advanced Verification Data



CD140b (PDGFRB) Antibody (14-1402-82)

Fig. 4 Reduced pSmad3 in mice treated with c8 (A) Representative liver (top panels) and lung (bottom panels) sections from mice treated with c16 or c8 after induced fibrotic injury stained for fibroblasts [PDGFRbeta (plateletderived growth factor receptor beta), green] and pSmad3 (red). (B) Quantification of pSmad3 nuclear intensity within individual PDGFRbeta+ cells documents a significant reduction in fibroblast-specific pSmad3 in fibrotic mice treated with c8. Data represent means +/- SEM; n = 102 (Bleo c8), n = 254 (Bleo c16), n = 262 (CCI 4 c8), and n = 361 (CCI 4 c16). For both comparisons, P < 0.0001 (shown is a representative example of the distribution of individual pSmad3 mean fluorescence intensities in PDGFRbeta+ cells, and the average of these means, for a single sample condition). Scale bar, 100 µm. P values were calculated using the unpaired Student's t tests. Cell treatment validation info.

Product Images For CD140b (PDGFRB) Monoclonal Antibody (APB5), eBioscience™



CD140b (PDGFRB) Antibody (14-1402-82) in Flow

Staining of NIH/3T3 cell line with 0.5 µg of Rat IgG2a kappa Isotype Control Purified (Product # 14-4321-82) (open histogram) or 0.5 µg of Anti-Mouse CD140b (PDGF Receptor b) Purified (filled histogram) followed by Anti-Rat IgG Biotin (Product # 13-4813-85) and Streptavidin PE (Product # 12-4317-87). Total viable cells were used for analysis.

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Western Blot (5)

Science advances

Non-neuronal expression of SARS-CoV-2 entry genes in the olfactory system suggests mechanisms underlying COVID-19-associated anosmia.

"14-1402 was used in Western Blotting to identify cell types in the olfactory epithelium and olfactory bulb that express SARS-CoV-2 cell entry molecules."

Authors: Brann DH, Tsukahara T, Weinreb C, Lipovsek M, Van den Berge K, Gong B, Chance R, Macaulay IC, Chou HJ, Fletcher RB, Das D, Street K, de Bezieux HR, Choi YG, Rizzo D, Dudoit S, Purdom E, Mill J, Hachem RA, Matsunami H, Logan DW, Goldstein BJ, Grubb MS, Ngai J, Datta SR

Species
Mouse

Dilution
1:100

Year
2020

Nature communications

Laminin regulates PDGFR(+) cell stemness and muscle development.

"Published figure using CD140b (PDGFRB) monoclonal antibody (Product # 14-1402-82) in Immunofluorescence"

Authors: Yao Y, Norris EH, Mason CE, Strickland S

Species
Mouse

Dilution
Not Cited

Year
2016

[View more WB references on thermofisher.com](#)

Immunohistochemistry (63)

Journal of neuroscience research

Parenchymal pericytes are not the major contributor of extracellular matrix in the fibrotic scar after stroke in male mice.

"14-1402 was used in Immunohistochemistry-immunofluorescence to suggest that parenchymal (PDGFRβ+) pericytes do not play a dominant role in extracellular matrix formation in the fibrotic scar after stroke in male mice."

Authors: Roth M, Enström A, Aghabeick C, Carlsson R, Genové G, Paul G

Species
Mouse

Dilution
1:200

Year
2020

Fluids and barriers of the CNS

Angiomodulin (IGFBP7) is a cerebral specific angiocrine factor, but is probably not a blood-brain barrier inducer.

"Published figure using CD140b (PDGFRB) monoclonal antibody (Product # 14-1402-82) in Immunocytochemistry"

Authors: Bar O, Gelb S, Atamny K, Anzi S, Ben-Zvi A

Species
Not Applicable

Dilution
Not Cited

Year
2020

[View more IHC references on thermofisher.com](#)

More applications with references on thermofisher.com

IHC (P) (1)

IHC (F) (13)

ICC/IF (23)

Flow (16)

ELISA (1)

Misc (1)

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