CD140a (PDGFRA) Monoclonal Antibody (APA5), PE, eBioscience™

Product Details	
Size	50 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	APA5
Conjugate	PE
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_657615

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	2 Publications
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	0.5 µg/test	51 Publications

Product Specific Information

Description: The APA5 monoclonal antibody reacts with the mouse CD140a molecule, the alpha chain of the platelet derived growth factor receptor (PDGF receptor). PDGFRa 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. CD140a is expressed by embryonic tissues and mesenchymal-derived cells of the adult mouse tissues.

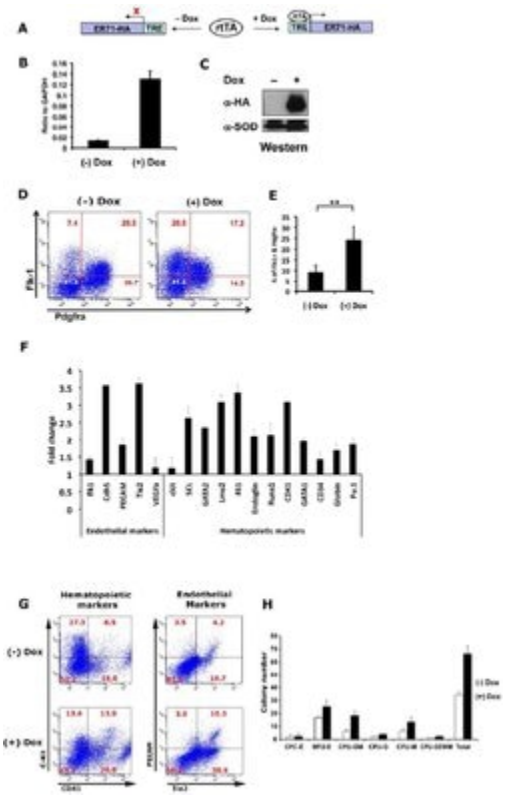
Applications Reported: This APA5 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This APA5 antibody has been tested by flow cytometric analysis of NIH/3T3 cells. This can be used at less than or equal to 0.5 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

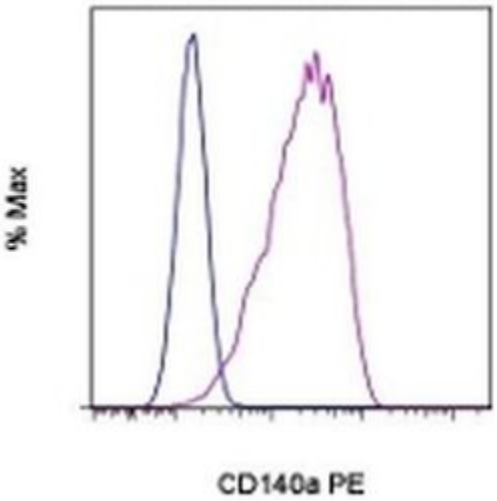
Filtration: 0.2 µm post-manufacturing filtered.

Advanced Verification Data



CD140a (PDGFRA) Antibody (12-1401-81)
Figure 5 Etv2 overexpression in mouse embryonic stem cells increases hematopoietic and endothelial potential (A) Schematic of inducible Etv2 overexpressing mouse embryonic stem cell line used in the following experiments. Etv2 is induced by addition of doxycycline. (B) qRT-PCR for Etv2 transcript and (C) western blot analysis for HA-tagged Etv2 protein confirm overexpression of Etv2 in the inducible ES cells (induced with 0.5 ug/ml doxycycline from D3 to 4 and analyzed on D4). (D) FACS analysis (Flk1/Pdgfra) of Etv2 overexpressing mES cells after induction with doxycycline [(-) Dox: no treatment, (+) Dox: doxycycline treatment]. (E) Quantification of the Flk1-single positive cell population on day 5 (n=5; **, p<0.01). (F) qRT-PCR of endothelial and hematopoietic genes on day 4. Fold change indicates expression level relative to the uninduced condition. (G) FACS profiles for hematopoietic (c-kit/CD41) and endothelial (PECAM/Tie2) markers in induced and uninduced conditions on Day 9. (H) Colony forming cell (CFC) assay from induced [(+) Dox] and uninduced [(-) Dox] ES cells. Note enhanced hematopoietic cell colony formation activity in cells overexpressing Etv2. Cell treatment validation info.

Product Images For CD140a (PDGFRA) Monoclonal Antibody (APA5), PE, eBioscience™



CD140a (PDGFRA) Antibody (12-1401-81) in Flow
Staining of NIH/3T3 cells with 0.5 µg of Rat IgG2a K Isotype Control PE (Product # 12-4321-80) (blue histogram) or 0.5 µg of Anti-Mouse CD140a (PDGF Receptor a) PE (purple histogram). Total viable cells were used for analysis.

View more figures on thermofisher.com

56 References

Immunohistochemistry (1)

Nature medicine

Microenvironmental control of breast cancer subtype elicited through paracrine platelet-derived growth factor-CC signaling.

"12-1401 was used in Immunohistochemistry-immunofluorescence to study the role of cancer-associated fibroblasts as determinants of the molecular subtype of breast cancer."

Authors: Roswall P,Bocci M,Bartoschek M,Li H,Kristiansen G,Jansson S,Lehn S,Sjölund J,Reid S,Larsson C,Eriksson P, Anderberg C,Cortez E,Saal LH,Orsmark-Pietras C,Cordero E,Haller BK,Häkkinen J,Burvenich IJG,Lim E,Orimo A, Höglund M,Rydén L,Moch H,Scott AM,Eriksson U,Pietras K

Species
Human

Dilution
1:200

Year
2018

Immunohistochemistry (Paraffin) (1)

Development (Cambridge, England)

ER71 directs mesodermal fate decisions during embryogenesis.

"Published figure using CD140a (PDGFRA) monoclonal antibody (Product # 12-1401-81) in Flow Cytometry"

Authors: Rasmussen TL,Kweon J,Diekmann MA,Belema-Bedada F,Song Q,Bowlin K,Shi X,Ferdous A,Li T,Kyba M, Metzger JM,Koyano-Nakagawa N,Garry DJ

Species
Mouse

Dilution
1:200

Year
2011

Immunohistochemistry (Frozen) (2)

Proceedings of the National Academy of Sciences of the United States of America

Olig2+ neuroepithelial motoneuron progenitors are not multipotent stem cells in vivo.

Authors: Mukouyama YS,Deneen B,Lukaszewicz A,Novitch BG,Wichterle H,Jessell TM,Anderson DJ

Species
Not Applicable

Dilution
Not Cited

Year
2006

The Journal of neuroscience : the official journal of the Society for Neuroscience

Tlx, an orphan nuclear receptor, regulates cell numbers and astrocyte development in the developing retina.

Authors: Miyawaki T,Uemura A,Dezawa M,Yu RT,Ide C,Nishikawa S,Honda Y,Tanabe Y,Tanabe T

Species
Not Applicable

Dilution
Not Cited

Year
2004

More applications with references on thermofisher.com

ICC/IF (1) **Flow (51)**