

Technical Data Sheet

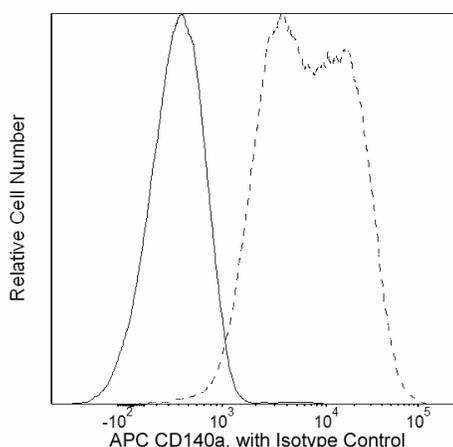
APC Rat Anti-Mouse CD140a

Product Information

| | |
|-------------------------|---|
| Material Number: | 562777 |
| Alternate Name: | Pdgfra; Pdgfr2; PDGF-R alpha; Platelet derived growth factor receptor alpha |
| Size: | 50 µg |
| Concentration: | 0.2 mg/ml |
| Clone: | APA5 |
| Immunogen: | Mouse PDGF Receptor α chain |
| Isotype: | Rat (WF) IgG2a, κ |
| Reactivity: | QC Testing: Mouse |
| Storage Buffer: | Aqueous buffered solution containing ≤0.09% sodium azide. |

Description

The APA5 antibody monoclonal antibody specifically binds to the Platelet-Derived Growth Factor (PDGF) Receptor α chain (CD140a, PDGFR-α), a receptor tyrosine kinase that is widely expressed on cells of mesenchymal origin in the embryo and adult and on several other cell types during embryonic development, but not on hematopoietic cells. PDGFR-α binds to PDGF A and B chains, in contrast to PDGFR-β, that binds only to the PDGF B chain. Biologically active PDGF is a disulphide-linked dimer, forming the AA, AB, and BB isoforms. Ligand binding to the PDGF Receptor induces the formation of receptor dimers (aa, ab, or bb), autophosphorylation, and internalization. The APA5 antibody has been demonstrated to block binding of PDGF-AA to PDGFR-α-expressing cells in vitro and to block some PDGF-mediated developmental events in vivo.



Flow cytometric analysis of CD140a expression on mouse fibroblast NIH/3T3 cells. Fresh NIH/3T3 cells were stained with either APC Rat anti-Mouse CD140a antibody (Cat. No. 562777, solid line histogram) or APC Rat IgG2a, κ Isotype Control (Cat. No. 553932, dashed line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

Application Notes

Application

| | |
|----------------|------------------|
| Flow cytometry | Routinely Tested |
|----------------|------------------|

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|---------------------------------|--------|--------|
| 554656 | Stain Buffer (FBS) | 500 ml | (none) |
| 553932 | APC Rat IgG2a κ Isotype Control | 0.1 mg | R35-95 |

BD Biosciences

bdbiosciences.com

| | | | | | |
|---------------|--------------|---------------|--------------|--------------|-------------------------|
| United States | Canada | Europe | Japan | Asia Pacific | Latin America/Caribbean |
| 877.232.8995 | 800.979.9408 | 32.53.720.550 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be help responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD



Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
4. 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.
5. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

Fruittiger M, Calver AR, Krüger WH. PDGF mediates a neuron-astrocyte interaction in the developing retina. *Neuron*. 1996; 17(6):1117-1131. (Clone-specific: Blocking)

Heldin CH. Structural and functional studies on platelet-derived growth factor. *EMBO J*. 1992; 11(12):4251-4259. (Biology)

Takakura N, Yoshida H, Kunisada T, Nishikawa S, Nishikawa SI. Involvement of platelet-derived growth factor receptor-alpha in hair canal formation. *J Invest Dermatol*. 1996; 107(5):770-777. (Immunogen: Blocking, ELISA, Immunohistochemistry, Inhibition, Western blot)

BD Biosciences

bdbiosciences.com

| | | | | | |
|---------------|--------------|---------------|--------------|--------------|-------------------------|
| United States | Canada | Europe | Japan | Asia Pacific | Latin America/Caribbean |
| 877.232.8995 | 800.979.9408 | 32.53.720.550 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD

