SONY

Product Data Sheet

APC anti-mouse CD140a

Catalog # / Size: 1279535 / 25 µg
1279540 / 100 µg

Clone: APA5

Isotype: Rat IgG2a, κ

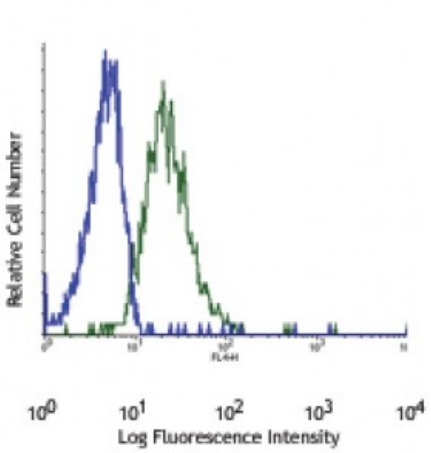
Immunogen: Mouse PDGFR-α-hIgG1 recombinant fusion protein

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.2



Mouse fibroblast NIH/3T3 cells stained with APA5 APC

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 1.0 microg per 10^6 cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported (for relevant formats) applications include: Western Blot, blocking function2, and immunohistochemical staining of paraffin and frozen sections. The LEAF™ purified antibody is recommended for functional assays.

Application References:

1. Takakura N, *et al.* 1996. *J. Invest. Dermatol.* 107:770.
2. Liao C, *et al.* 2010. *J. Clin. Invest.* 120:242. (Block)
3. Wang W, *et al.* 2014. *PNAS.* 111:14466. PubMed

Description: Platelet-derived growth factor receptor-α (PDGFR-α), CD140a, is one of two receptors for platelet-derived growth factors (PDGFs) and binds to all isoforms of PDGFs: PDGF-AA, PDGF-AB, and PDGF-BB. PDGFRa is a receptor tyrosine kinase that forms homodimers or heterodimers on the surface upon ligand binding and phosphorylates substrates. PDGFRs consist of either homodimers of α/α, β/β, or heterodimers of α/β. PDGF receptors, α and β, are single glycoproteins with intracellular tyrosine kinase domain. Their ligand, PDGF, is a mitogen for connective tissue and glial cells. CD140a is expressed on embryonic tissues and mesenchymal-derived cells of adult mice. PDGF plays a role in wound healing and acts as a chemoattractant for fibroblasts, smooth muscle cells, glial cells, monocytes, and neutrophils.

Antigen References:

1. Mukouyama YS, *et al.* 2006. *Proc Natl Acad Sci USA.* 103(5):1551
2. Miyawaki T, *et al.* 2004. *J Neurosci.* 24(37):8124
3. Takakura N, *et al.* 1997. *J Histochem Cytochem.* 45(6):883

Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com