SONY

Product Data Sheet

APC anti-human CD144 (VE-Cadherin)

Catalog # / Size: 2342535 / 25 tests
2342540 / 100 tests

Clone: BV9

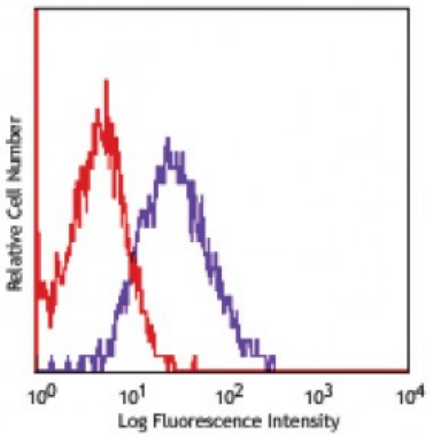
Isotype: Mouse IgG2a, κ

Reactivity: Human

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 and 0.2% (w/v) BSA (origin USA).

Concentration: Lot-specific



Human umbilical vein endothelial cells, HUVEC, stained with BV9 APC

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Clone BV9 has been shown to block VE-cadherin, causing a redistribution of VE-cadherin away from intracellular junctions.[6] This clone binds to EC3-EC4 region in the extracellular domain of human VE-cadherin.[7] Additional reported applications (for the relevant formats) include: Western Blotting[1,2], immunofluorescence microscopy[1,3], immunoprecipitation[1,4], blocking angiogenesis *in vitro*[4,5], inhibiting VE-cadherin reorganization4, and inducing endothelial cell apoptosis4. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (contact our custom solutions team).

Application References:

1. Almagro S, *et al.* 2010. *Mol. Cell Biol.* 30:1703. (WB, IF, IP)
2. Zhang F, *et al.* 2004. *J. Biol. Chem.* 279:11760. (WB)
3. Iurlaro M, *et al.* 2004. *Am. J. Pathol.* 165:181. (IF)
4. Corada M, *et al.* 2001. *Blood* 97:1679. (IP, Block)
5. Kooistra M, *et al.* 2005. *FEBS* 579:4966. (Block)
6. Corada M, *et al.* 2001. *Blood* 97:1679. (Block)
7. Bouillet L, *et al.* 2013. *Laboratory Investigation* 93:1194-11202.

Description: CD144, also known as VE-cadherin and cadherin-5, is a 140 kD glycoprotein which is composed of five extracellular cadherin repeats and a highly conserved cytoplasmic tail region. It is a calcium-dependent transmembrane cell-cell adhesion molecule localized at the intercellular boundaries of endothelial cells, hematopoietic stem cells, and perineurial cells. It functions as a classic cadherin by mediating homophilic adhesion and functions as a plasma membrane attachment site for the cytoskeleton. CD144 is thought to play a role in vascular development, permeability, and remodeling.

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Antigen References:
1. Taddei A, *et al.* 2008. *Nat. Cell Biol.* 10:923.
2. Gavard J, *et al.* 2006. *Nat. Cell Biol.* 8:1223.
3. Kim I, *et al.* 2005. *Blood* 106:903.
4. Suzuki S, *et al.* 1991. *Cel*