

PE/Dazzle™ 594 anti-human CD144 (VE-Cadherin)

Catalog # / Size: 2342595 / 25 tests
2342600 / 100 tests

Clone: BV9

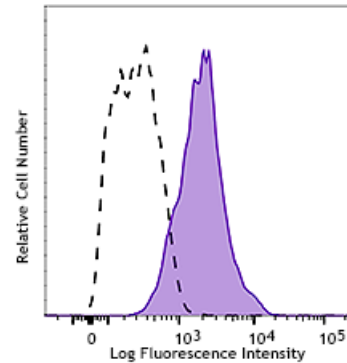
Isotype: Mouse IgG2a, κ

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 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) were stained with CD144 (clone BV9) PE/Dazzle™ 594 (filled histogram) or mouse IgG2a

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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

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.

- Application 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. *Cell Regul.* 2:261.

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.

- 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. *Cell Regul.* 2:261.