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**PE/Cy7 anti-human CD144 (VE-Cadherin)**

**Catalog # /** 2342575 / 25 tests  
**Size:** 2342580 / 100 tests

**Clone:** BV9

**Isotype:** Mouse IgG2a,  $\kappa$

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 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

**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 microL per million cells or 5 microL 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.<sup>6</sup> This clone binds to EC3-EC4 region in the extracellular domain of human VE-cadherin.<sup>7</sup> Additional reported applications (for the relevant formats) include: Western Blotting<sup>1,2</sup>, immunofluorescence microscopy<sup>1,3</sup>, immunoprecipitation<sup>1,4</sup>, blocking angiogenesis *in vitro*<sup>4,5</sup>, inhibiting VE-cadherin reorganization<sup>4</sup>, and inducing endothelial cell apoptosis<sup>4</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m 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.

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**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. *Cel*