SONY

Product Data Sheet

Purified anti-human CD144 (VE-Cadherin)

Catalog # / Size: 2342510 / 100 µg
2342505 / 25 µg

Clone: BV9

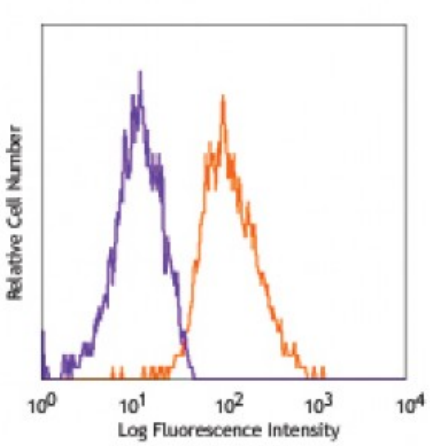
Isotype: Mouse IgG2a, κ

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography.

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

Concentration: 0.5



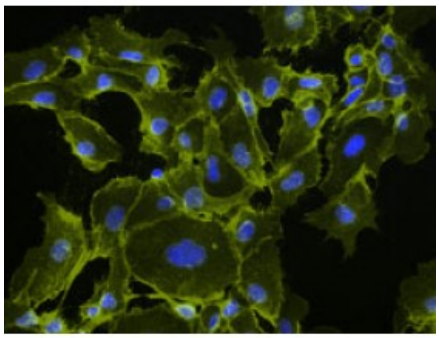
Human umbilical vein endothelial cells, HUVEC, stained with purified BV9 conjugated with PE

Applications:

Applications: Other

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 ≤0.5 microg per million cells in 100 microL volume. For immunofluorescence microscopy, a concentration range of 5-10 µg/ml is recommended. 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).



HUVEC cells were fixed with 1% paraformaldehyde (PFA) and then stained with 10 microg/ml of purified CD144 (VE-Cadherin) (clone BV9) at 4°C overnight, followed by 2.5 microg/ml of Alexa Fluor® 555 anti-mouse IgG (yellow) for 2 hours at room te

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.

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*