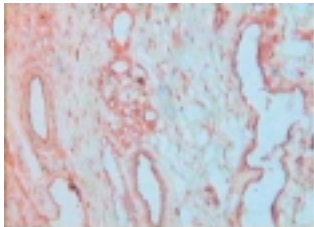


New Product Highlights

Antibody to VE-Cadherin (CD144): Endothelial cell-specific marker

VE-cadherin (vascular endothelial cadherin, cadherin-5, CD144) is an adhesive protein that is expressed on endothelial cells of all blood and lymphatic vessels. It is involved in a variety of cell processes involving cell-cell adhesion, including vascular permeability, leukocyte and hematopoietic progenitor cell migration, angiogenesis, tumor vascularization and apoptosis [1,2]. In contrast to other cadherins, it is connected both to the actin cytoskeleton and to the intermediate filaments [3].

VE-cadherin is generally considered to be an endothelial cell-specific marker. Its expression is reduced in angiosarcomas and aberrant expression may be seen in perineurial cells, aggressive human melanoma cells capable of forming primitive tubular networks, developing placental cytotrophoblasts and cultured choriocarcinoma cells. During development, VE-cadherin is expressed in yolk sac mesenchymal cells. Mice deficient in VE-cadherin or expressing truncated VE-cadherin die in midgestation from severe vascular defects involving endothelial apoptosis and disrupted survival signaling pathways [4-6].



Frozen section of acetone-fixed tonsil was stained with a 1:50 dilution of **Anti-VE-Cadherin** (Prod. No. **V 1514**) and visualized with **Peroxidase ExtrAvidin® Staining kit** (Prod. No. **EXTRA-3**) using an **AEC substrate** (Prod. No. **AEC-101**).

Sigma-RBI is pleased to introduce an **Anti-VE-cadherin** (CD144, Prod. No. **V 1514**) which was developed in rabbit using a synthetic peptide corresponding to amino acids 91-110 of human VE-cadherin as immunogen. Anti-VE-cadherin specifically recognizes human VE-cadherin. Applications include immunoblotting and immunohistochemistry. This antibody will be a useful tool for the study of adherens junctions of endothelial cells as well as other important cell-cell interactions including adhesion, permeability, vasculogenesis, angiogenesis, vascular remodeling.



Whole cell extract of HUVEC cells was separated on SDS-PAGE and blotted with **Anti-VE-Cadherin** (Prod. No. **V 1514**). The antibody was visualized with **Goat anti-Rabbit IgG, Alkaline Phosphatase** (Prod. No. **A 9919**) using a **SIGMA-FAST™ BCIP/BNT substrate** (Prod. No. **B 5655**).

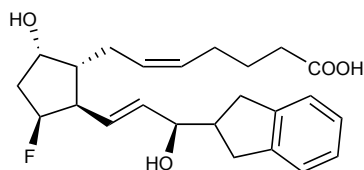
Lane 1: Antibody 1:1,000
Lane 2: Antibody 1:2,000
Lane 3: Antibody 1:4,000
Lane 4: Negative Control w/o antibody

References

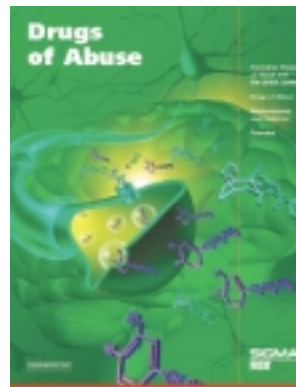
1. Yap, A.S., et al., *Ann. Rev. Cell Dev. Biol.*, **13**, 119-146 (1997).
2. Angst, B.D., et al., *J. Cell Sci.*, **114**, 629-641 (2001).
3. Lampugnani, M.G., et al., *J. Cell Biol.*, **118**, 1511-1522 (1992).
4. Hendrix, M.J., et al., *Proc. Natl. Acad. Sci. USA*, **98**, 8018-8023 (2001).
5. Zhou, Y., et al., *J. Clin. Invest.*, **99**, 2139-2151 (1997).
6. Smith, M.E., et al., *Histopathology*, **32**, 411-413 (1998).

Erratum

We regret that the structure for AL-8810 was incorrectly listed in *Celltransmissions* **18(3)**, page 19. The correct structure is:



Coming Soon!



- ◆ Featuring overviews of drugs of abuse such as psycho-stimulants, opiates, anxiolytics/sedatives, cannabinoids and nicotine
- ◆ Over 470 products, including 85 new products

See Business Reply Card to reserve your copy!