PRODUCT INFORMATION

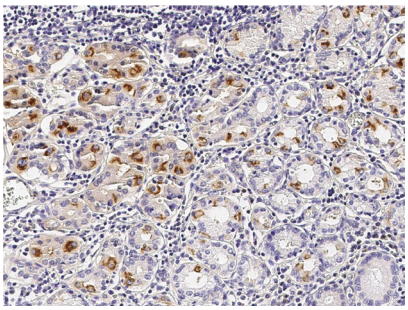
VE-Cadherin/CD144 Rabbit Monoclonal Antibody (Clone 012)

Item No. 37085

Overview and Properties

Contents:	This vial contains 50 or 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	7B4 Antigen, Cadherin-5, Vascular Endothelial Cadherin
Immunogen:	Recombinant human VE-cadherin
Cross Reactivity:	(+) VE-cadherin
Species Reactivity:	(+) Human; other species not tested
Form:	Liquid
Storage:	-80°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Clone:	012
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC); the recommended starting concentration is 1:250-1:1,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Immunohistochemical staining of formalin-fixed and paraffin-embedded human stomach using VE-Cadherin/CD144 Rabbit Monoclonal Antibody (Clone 012) at a dilution of 1:500.

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Description

VE-cadherin, also known as CD144, is a type II classical cadherin and member of the cadherin superfamily of calcium-dependent cell adhesion molecules.[1] It is composed of an N-terminal signal peptide, a pro-peptide, five extracellular cadherin repeats that bind to homotypic cadherins, a transmembrane domain, and a cytoplasmic tail that interacts with the cytoskeleton. VE-cadherin is endothelial cell-specific and is localized to intracellular junctions where it participates in vascular structure assembly.[2-4] An anti-VE-cadherin antibody in combination with an anti-CD31 antibody inhibits tube formation in human umbilical vein endothelial cells (HUVECs).[5] Knockout of *Cdh5*, the gene encoding VE-cadherin, in mouse embryonic stem cells prevents the formation of vessel-like structures in 11-day-old embryoid bodies.[3] VE-cadherin is overexpressed in melanoma and breast cancer and is positively correlated with poor prognosis.[6] Cayman's VE-Cadherin/CD144 Rabbit Monoclonal Antibody (Clone 012) can be used for immunohistochemistry (IHC).

References

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2. Lampugnani, M.G., Resnati, M., Raiteri, M., *et al.* A novel endothelial-specific membrane protein is a marker of cell-cell contacts. *J. Cell Biol.* **118(16)**, 1511-1522 (1992).
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4. Breviario, F., Caveda, L., Corada, M., *et al.* Functional properties of human vascular endothelial cadherin (7B4/cadherin-5), an endothelium-specific cadherin. *Arterioscler. Thromb. Vasc. Biol.* **15(8)**, 1229-1239 (1995).
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6. Bartolomé, R.A., Torres, S., Isern de Val, S., *et al.* VE-cadherin RGD motifs promote metastasis and constitute a potential therapeutic target in melanoma and breast cancers. *Oncotarget* **8(1)**, 215-227 (2017).

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