

# PRODUCT INFORMATION



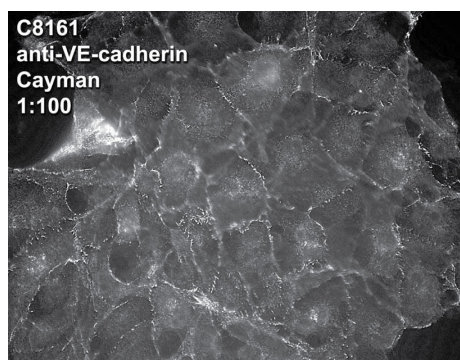
## VE-Cadherin/CD144 Polyclonal Antibody

Item No. 160840

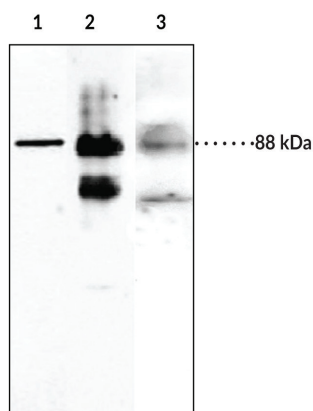
### Overview and Properties

<b>Contents:</b>	This vial contains 500 µl of protein A-purified polyclonal antibody.
<b>Synonyms:</b>	7B4 Antigen, Cadherin-5, CD144, Vascular Endothelial Cadherin
<b>Immunogen:</b>	Recombinant VE-cadherin peptide fragment (amino acids 259-434)
<b>Cross Reactivity:</b>	(+) VE-cadherin
<b>Species Reactivity:</b>	(+) Human, mouse, bovine; other species not tested
<b>Uniprot No.:</b>	P33151
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	0.1 M Tris-glycine, pH 7.8, containing 50% glycerol, and 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	Western blot (WB), Immunoprecipitation (IP), and Immunocytochemistry (ICC); the recommended starting dilution for WB is 1:200, and 1:100 for IP and ICC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



C8161 (metastatic cutaneous melanoma)  
\*Photo courtesy of Hendrix, M.J.C.



Lane 1: Mouse kidney  
Lane 2: Rat brain  
Lane 3: Human Cerebellum

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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VE-cadherin, also known as CD144, is a type II classical cadherin and member of the cadherin superfamily of calcium-dependent cell adhesion molecules.<sup>1</sup> 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.<sup>2-4</sup> An anti-VE-cadherin antibody in combination with an anti-CD31 antibody inhibits tube formation in human umbilical vein endothelial cells (HUVECs).<sup>5</sup> 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.<sup>3</sup> VE-cadherin is overexpressed in melanoma and breast cancer and is positively correlated with poor prognosis.<sup>6</sup> Cayman's VE-Cadherin/CD144 Polyclonal Antibody can be used for immunocytochemistry (ICC), immunohistochemistry (IHC), immunoprecipitation (IP), and Western blot (WB) applications.

## 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(6)**, 1511-1522 (1992).
3. Vittet, D., Buchou, T., Schweitzer, A., *et al.* Targeted null-mutation in the vascular endothelial-cadherin gene impairs the organization of vascular-like structures in embryoid bodies. *Proc. Natl. Acad. Sci. USA* **94(12)**, 6273-6278 (1997).
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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