

PRODUCT INFORMATION



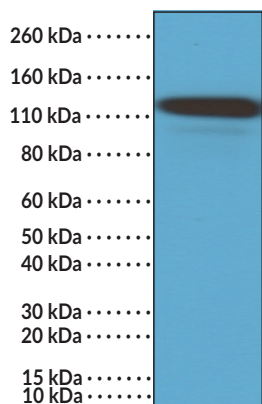
CD146 Long Rabbit Monoclonal Antibody (Clone RM249)

Item No. 32202

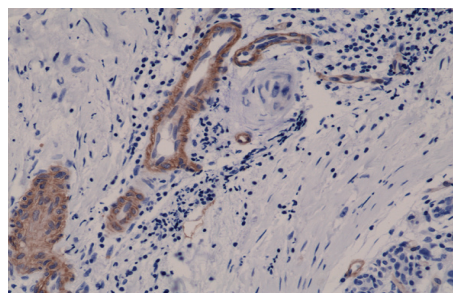
Overview and Properties

Contents:	100 µl of protein A-affinity purified monoclonal antibody
Synonyms:	LgCD146, CD146-L, MUC18, MCAM-1
Immunogen:	Synthetic peptide corresponding to the C-terminal region of human IgCD146
Cross Reactivity:	(+) IgCD146; (-) shCD146, soluble CD146
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM249
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western Blot (WB); the recommended starting dilution for IHC is 1:200-1:500 and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of A375 cell lysate using CD146 Long Rabbit Monoclonal Antibody (Clone RM249) at a dilution of 1:1,000, showed CD146 (~110 kDa) expression in A375 cells.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human breast cancer tissue sections using CD146 Long Rabbit Monoclonal Antibody (Clone RM249) at a dilution of 1:400.

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
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Description

CD146, also known as the melanoma cell adhesion molecule (MCAM), is an adhesion molecule and type 1 transmembrane glycoprotein with roles in vascular homeostasis, cell migration, and neuronal differentiation and is encoded by *MCAM* in humans.^{1,2} It is comprised of a signal sequence, an extracellular domain containing five immunoglobulin-like (Ig-like) domains, a hydrophobic transmembrane domain, and a cytosolic domain composed of an ezrin, radixin, moesin (ERM) protein complex binding motif and a double leucine motif for epithelial basolateral targeting. Alternative splicing of *MCAM* produces two isoforms that differ in length of their cytosolic domain, CD146 short (shCD146) and CD146 long (lgCD146), that contain one or two PKC phosphorylation sites, respectively.³ LgCD146 is expressed on endothelial cells, smooth muscle cells (SMCs), and pericytes, where it is localized to tight junctions, as well as in mononuclear cells, mesenchymal stromal cells, and trophoblasts.¹ It induces stabilization of capillary-like structures in a Matrigel™ assay. Cayman's CD146 Long Rabbit Monoclonal Antibody (Clone RM249) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Leryoer, A.S., Blin, M.G., Bachelier, R., *et al.* CD146 (Cluster of Differentiation 146). *Arterioscler. Thromb. Vasc. Biol.* **39(6)**, 1026-1033 (2019).
2. Wang, Z., Xu, Q., Zhang, N., *et al.* CD146, from a melanoma cell adhesion molecule to a signaling receptor. *Signal Transduct. Target. Ther.* **5(1)**, 148 (2020).
3. Wang, S., Yan, X. CD146, a multi-functional molecule beyond adhesion. *Cancer Lett.* **330(2)**, 150-162 (2013).

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