abcam

ab234280

PE Anti-CD146 antibody [P1H12]

Anti-CD146 antibody [P1H12] conjugated to PE - suitable for flow cytometry, and reacts with human samples. Clone [P1H12] is a mouse monoclonal antibody and one of the most commonly used clones for flow cytometry.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing MCAM protein. The exact immunogen used to generate this antibody is proprietary information. Database link P43121
Clone number	P1H12
Purification technique	Size-exclusion chromatography
Purification notes	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	10 µL for 10^6 Cells
Notes	-

Not recommended

Species	Rat, Mouse, Rabbit, Dog
Dilution info	-
Notes	-

Target data

See full target information MCAM

Function	Plays a role in cell adhesion, and in cohesion of the endothelial monolayer at intercellular junctions in vascular tissue. Its expression may allow melanoma cells to interact with cellular elements of the vascular system, thereby enhancing hematogeneous tumor spread. Could be an adhesion molecule active in neural crest cells during embryonic development. Acts as a surface receptor that triggers tyrosine phosphorylation of FYN and PTK2/FAK1, and a transient increase in the intracellular calcium concentration.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze, Store in the dark

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD146 also known as MCAM or MUC18 is a cell adhesion molecule that belongs to the immunoglobulin superfamily. With a mass of approximately 113 kDa CD146 is expressed mainly on the surface of endothelial cells but it can also be found on smooth muscle cells some T-cells and in certain cancerous tissues. This protein

	plays a role in cell-cell adhesion contributing to the integrity and signaling functions within tissue microenvironments.
Biological function summary	CD146 influences the migration and organization of cells within the vascular system. It serves as a component of cell adhesion complexes facilitating interactions between endothelial cells and other cell types. Additionally CD146 contributes to angiogenesis the process by which new blood vessels form from existing vasculature which is critical during tissue development and repair. This function makes it an important element in maintaining normal physiological processes.
Pathways	CD146 participates in the Wnt/β-catenin and MAPK signaling pathways which are vital in cell proliferation and differentiation. Through the Wnt/β-catenin pathway CD146 interacts with other proteins like Frizzled receptors to regulate gene transcription. In the MAPK pathway it is linked with signaling cascades that involve proteins such as ERK leading to cellular responses necessary for growth and response to external stimuli.
Associated diseases and disorders	CD146 has been implicated in melanoma progression and cardiovascular diseases. Its overexpression in melanoma associates it with increased tumor growth and metastasis often involving interactions with other adhesion molecules like integrins. In cardiovascular diseases CD146 relates to atherosclerosis as its expression on endothelial cells can promote inflammatory responses. Understanding these connections provides insights into potential therapeutic targets for treating these conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

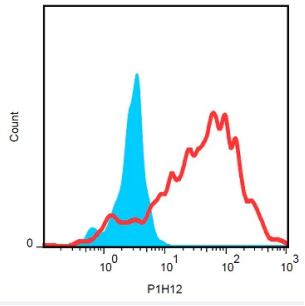
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - PE Anti-CD146 antibody [P1H12] (ab234280)

CD146 Flow Cytometry staining using mouse Anti-CD146 antibody

HUVEC cells. Gated on singlets.

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