

## PE anti-mouse CD146 Antibody

<b>Catalog# / Size</b>	134703 / 25 µg 134704 / 100 µg
<b>Clone</b>	ME-9F1
<b>Other Names</b>	S-Endo 1 antigen, MUC18, MCAM, Mel-CAM, A32 antigen
<b>Isotype</b>	Rat IgG2a
<b>Description</b>	CD146, also known as melanoma cell adhesion molecule (MCAM or Mel-CAM), MUC18, S-Endo1, and A32 antigen, is an integral membrane glycoprotein that belongs to the Ig superfamily. CD146 is strongly expressed by murine vascular endothelial cells. It is expressed on about 30% of neutrophils and 60% of NK cells. Unlike in humans, CD146 is undetectable on monocytes, dendritic cells, T cells, NKT cells, B cells, or smooth muscle cells in mouse. It has been reported that an increase in CD146 expression is associated with NK cell maturation. Combined with using CD27 and CD11b staining, CD146 may be an alternative marker to detect final stages of NK cell maturation and define NK cell subsets. CD146 <sup>+</sup> NK cells were found to be less cytotoxic and to produce less IFN $\gamma$ than CD146 <sup>-</sup> NK cells upon stimulation with target cells or activating antibodies. The role of CD146 on NK cell migration has yet to be investigated. The identification of CD146 ligand(s) will be crucial to address this issue.

### Product Details

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<b>Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Endothelial cell line TME-3H3
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
<b>Concentration</b>	0.2 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	FC - Quality tested
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is $\leq 0.06$ µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application References</b>	1. Schrage A, et al. 2008. Histochem. Cell. Biol. 129:441. 2. Birbrair A, et al. 2013. Am J Physiol Cell Physiol. 305:1098. PubMed
<b>(PubMed link indicates BioLegend citation)</b>	

#### Product Citations

1. Ichikawa S, et al. 2011. J Immunol. 186:5549. PubMed
2. Hutchins N, et al. 2013. J Leukoc Biol. 94:963. PubMed
3. Zolbin MM, et al. 2019. Reprod Biol Endocrinol. 17:36. PubMed
4. Guimarães-Camboa N et al. 2017. Cell stem cell. 20(3):345-359 . PubMed

RRID

AB\_1731999 (BioLegend Cat. No. 134703)  
AB\_2143527 (BioLegend Cat. No. 134704)

### Antigen Details

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<b>Structure</b>	CD146 is a transmembrane glycoprotein and belongs to the Ig superfamily of cell adhesion molecules.
<b>Distribution</b>	CD146 is strongly expressed by murine vascular endothelial cells, a subset of NK1.1 <sup>+</sup> cells, and neutrophils.
<b>Function</b>	CD146 has been reported to be functionally relevant for endothelial cell adhesion, angiogenesis, and NK cell function.
<b>Ligand/Receptor</b>	Unidentified ligand.
<b>Cell Type</b>	Endothelial cells, Neutrophils, Mesenchymal Stem Cells
<b>Biology Area</b>	Cell Biology, Immunology, Neuroscience, Neuroscience Cell Markers, Stem Cells
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Despoix N, et al. 2008. Eur. J. Immunol. 38:2855.</li> <li>2. Sorrentino A, et al. 2008. Exp. Hematol. 36:1035.</li> <li>3. Bardin N, et al. 2009. Arterioscler. Thromb. Vasc. Biol. 29:746.</li> </ol>
<b>Gene ID</b>	<a href="#">84004</a>

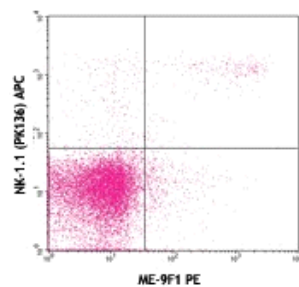
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

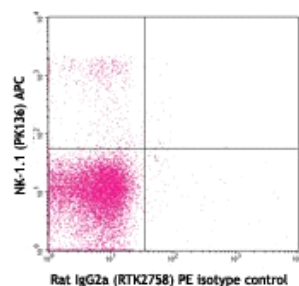
## Other Formats

PerCP/Cyanine5.5 anti-mouse CD146, Purified anti-mouse CD146, FITC anti-mouse CD146, Alexa Fluor® 488 anti-mouse CD146, APC anti-mouse CD146, PE/Cyanine7 anti-mouse CD146, Alexa Fluor® 647 anti-mouse CD146, Biotin anti-mouse CD146, Alexa Fluor® 594 anti-mouse CD146

## Product Data



C57BL/6 splenocytes stained with ME-9F1 PE and NK-1.1 (PK136) APC



C57BL/6 splenocytes stained with rat IgG2a (RTK2758) PE isotype control and NK-1.1 (PK136) APC

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