SONY

Product Data Sheet

Alexa Fluor® 647 anti-mouse CD146

Catalog # / Size: 1273590 / 100 µg
1273585 / 25 µg

Clone: ME-9F1

Isotype: Rat IgG2a

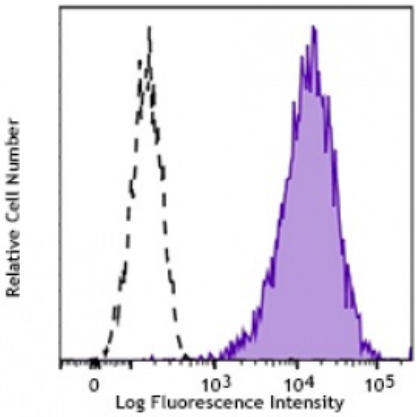
Immunogen: Endothelial cell line TME-3H3

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 647.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml



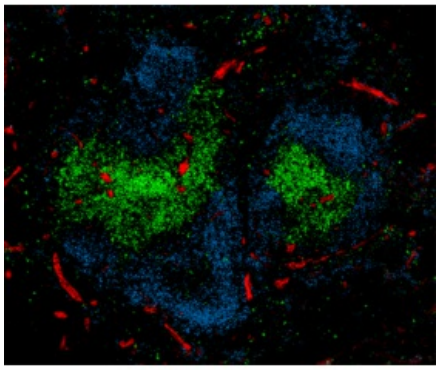
bEnd.3 cells (mouse endothelial cells) were stained with CD146 (clone ME-9F1) Alexa Fluor® 647 (filled histogram) or rat IgG2a Alexa Fluor® 647 isotype control (open histogram).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µl volume. For immunohistochemistry, a concentration range of 5.0 - 10.0 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.



C57BL/6 mouse frozen spleen section was fixed with 4% paraformaldehyde (PFA) for 10 minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then the section was stained with 10 µg/ml of CD146 (clone ME-9F1) Alexa Fluo

Application References:

1. Despoix N, *et al.* 2008. *Eur. J. Immunol.* 38:2855.
2. Sorrentino A, *et al.* 2008. *Exp. Hematol.* 36:1035.
3. Bardin N, *et al.* 2009. *Arterioscler. Thromb. Vasc. Biol.* 29:746.

Description: 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. $CD146^{+}$ NK cells were found to be less cytotoxic and to produce less IFNγ than CD146- 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.

Antigen References:

1. Despoix N, *et al.* 2008. *Eur. J. Immunol.* 38:2855.
2. Sorrentino A, *et al.* 2008. *Exp. Hematol.* 36:1035.
3. Bardin N, *et al.* 2009. *Arterioscler. Thromb. Vasc. Biol.* 29:746.