Technical Data Sheet

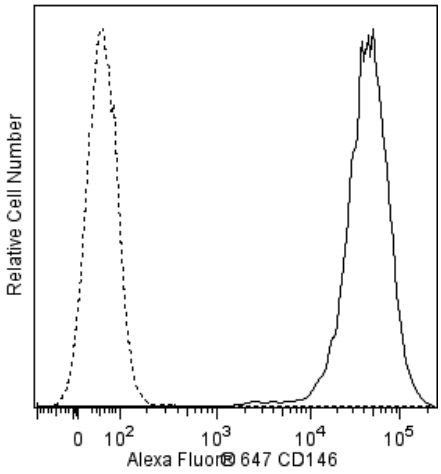
Alexa Fluor® 647 Mouse Anti-Human CD146

Product Information

Material Number:	**563619**
Alternate Name:	MCAM; MELCAM; MUC18; Gicerin; Melanoma cell adhesion molecule
Size:	50 tests
Vol. per Test:	5 µl
Clone:	P1H12
Immunogen:	Human Umbilical Vein Cells
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VIII
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The P1H12 monoclonal antibody specifically binds to CD146. CD146 is a 118 kDa transmembrane glycoprotein also known as MCAM, MUC18, or Mel-CAM. CD146 is a member of the immunoglobulin superfamily and is expressed by angioblasts and mesenchymal stems cells and is strongly expressed by blood vessel endothelium and smooth muscle. CD146 is also expressed by melanoma cells, intermediate trophoblasts and a subpopulation of activated T cells. The P1H12 monoclonal antibody has been reported to block endothelial cell adhesion that is observed very early in embryogenesis. It can be useful in the study of embryologic vasculogenesis. This antibody is suitable for immunohistochemical staining of acetone-fixed frozen tissue sections, immunoprecipitation and ELISA.



Flow cytometric analysis of CD146 expressed on Human HeLa cells. *Cells from the human HeLa cell line (ATCC CCL-2) were stained with either Alexa Fluor® 647 Mouse anti-Human CD146 antibody (Cat. No. 563619, solid line histogram) or Alexa Fluor® 647 mIgG1, κ Isotype Control (Cat. No. 557714; dashed line histogram). Flow cytometric fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
557714	Alexa Fluor® 647 Mouse IgG1 κ Isotype Control	100 tests	MOPC-21

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
8. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
9. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

Elshal MF, Khan SS, Takahashi Y, Solomon MA, McCoy JP, Jr. CD146 (Mel-CAM), an adhesion marker of endothelial cells, is a novel marker of lymphocyte subset activation in normal peripheral blood. *Blood.* 2005; 106(8):2923-2924. (Clone-specific: Flow cytometry)

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Shih IM, Elder DE, Hsu MY, Herlyn M. Regulation of Mel-CAM/MUC18 expression on melanocytes of different stages of tumor progression by normal keratinocytes. *Am J Pathol.* 1994; 145(4):837-845. (Biology)

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Solovey AN, Gui L, Chang L, Enenstein J, Browne PV, Hebbel RP. Identification and functional assessment of endothelial P1H12. *J Lab Clin Med.* 2001; 138(5):322-331. (Clone-specific: Activation, Functional assay, Inhibition, Stimulation)

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