Technical Data Sheet

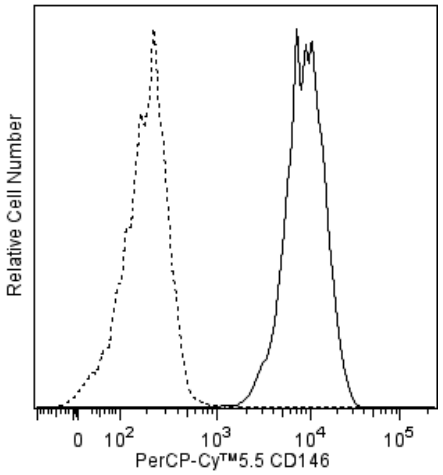
PerCP-Cy™5.5 Mouse Anti-Human CD146

Product Information

Material Number:	**562134**
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:	HLDA8
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The P1H12 antibody reacts with 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 HeLa cells. *HeLa cells were stained with either PerCP-Cy™5.5 Mouse Anti-Human CD146 antibody (Cat. No. 562134, solid line histogram) or a PerCP-Cy™5.5 mIgG1, κ Isotype Control (Cat. No. 550795; 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 with PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
550795	PerCP-Cy™5.5 Mouse IgG1 κ Isotype Control	0.1 mg	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)

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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. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
6. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
7. 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.
8. PerCP-Cy5.5–labelled antibodies can be used with FITC- and R-PE–labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
9. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
10. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
11. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.
12. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.

References

Kishimoto T, von dem Borne AEG, Goyert SM,et al., ed. *Leucocyte Typing VI: White Cell Differentiation Antigens.* London: Garland Publishing; 1997. (Biology)

Sers C, Kirsch K, Rothbächer U, Riethmüller G, Johnson JP. Genomic organization of the melanoma-associated glycoprotein MUC18: implications for the evolution of the immunoglobulin domains. *Proc Natl Acad Sci U S A.* 1993; 90(18):8514-8518. (Biology)

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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)