

Technical Data Sheet

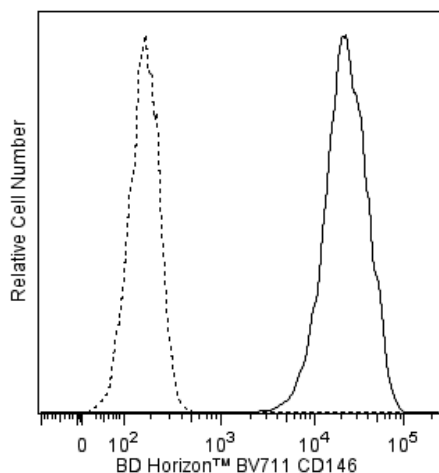
BV711 Mouse Anti-Human CD146**Product Information**

Material Number:	563186
Alternate Name:	MCAM; MELCAM; MUC18; Gicerin; Melanoma cell adhesion molecule
Size:	50 Tests
Vol. per Test:	5 µl
Clone:	PIH12
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 PIH12 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 stem 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 PIH12 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.

The antibody was conjugated to BD Horizon BV711 which is part of the BD Horizon Brilliant™ Violet family of dyes. This dye is a tandem fluorochrome of BD Horizon BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 711-nm. BD Horizon BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.



Flow cytometric analysis of CD146 expressed on HeLa cells. HeLa cells (ATCC® CCL 2) were stained with either BD Horizon™ BV711 Mouse Anti-Human CD146 antibody (Cat. No. 563186, solid line histogram) or a BD Horizon BV711 mIgG1, κ Isotype Control (Cat. No. 563044; dashed line histogram). Flow cytometric fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometric analysis was performed using a BD LSRFortessa™ Cell Analyzer 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 BD Horizon™ BV711 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV711 were removed.

Application Notes**Application**

Flow cytometry

Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
563044	BV711 Mouse IgG1, k Isotype Control	50 µg	X40

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. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
6. Cy is a trademark of Amersham Biosciences Limited.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

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)

Solovey A, Lin Y, Browne P, Choong S, Wayner E, Hebbel R P. Circulating activated endothelial cells in sickle cell anemia. *N Engl J Med*. 1997; 337(22):1584-1590. (Immunogen: Cell separation, Fluorescence microscopy, Immunofluorescence)

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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