Technical Data Sheet

V450 Mouse Anti-Human CD144

Product Information

Material Number:	561569
Alternate Name:	VE-cadherin; Cadherin-5; CDH5; Vascular endothelial cadherin
Size:	50 tests
Vol. per Test:	5 μl
Clone:	55-7H1
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VI E092
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and $\leq 0.09\%$ sodium azide.

Description

The 55-7H1 antibody reacts with a calcium-independent epitope on cadherin-5, a member of the cadherin family of calcium-dependent adhesion molecules. Cadherin-5 is expressed on endothelial cells in vivo and in vitro. It may play a role in the organization of lateral endothelial junctions and in the control of permeability properties of vascular endothelium.

The antibody is conjugated to BD Horizon™ V450, which has been developed for use in multicolor flow cytometry experiments and is available exclusively from BD Biosciences. It is excited by the Violet laser Ex max of 406 nm and has an Em Max at 450 nm. Conjugates with BD Horizon[™] V450 can be used in place of Pacific Blue[™] conjugates.



Flow cytometric analysis of CD144 expression on human HUVEC cells. HUVEC cells (Lonza, Cat No. CC-2519) were stained with BD Horizon™ V450 Mouse anti-Human CD144 antibody (Cat. No. 561569, solid line histogram) or a BD Horizon™ V450 mlgG1, κ Isotype Control (Cat. No. 560373; 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 cytometry 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[™] V450 under optimum conditions, and unreacted BD Horizon[™] V450 was removed.

Application Notes

Application						
Flow cytometry	Routinely Tested					
Suggested Compar	nion Products					
Catalog Number	Name	Size	Clone			
560373	V450 Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21			
554656	Stain Buffer (FBS)	500 ml	(none)			
Product Notices						

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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- 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 2. sample (a test).
- 3. An isotype control should be used at the same concentration as the antibody of interest.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before 4. discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
- BD Horizon[™] V450 has a maximum absorption of 406 nm and maximum emission of 450 nm. Before staining with this reagent, please 6. confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
- 7. Pacific Blue[™] is a trademark of Molecular Probes, Inc., Eugene, OR.

References

Breier G, Breviario F, Caveda L, et al. Molecular cloning and expression of murine vascular endothelial-cadherin in early stage development of cardiovascular system. Blood. 1996; 87(2):630-641. (Biology)

Lampugnani MG, Resnati M, Raiteri M, et al. A novel endothelial-specific membrane protein is a marker of cell-cell contacts. J Cell Biol. 1996; 118(6):1511-1522. (Biology)

Vincent PA, Xiao K, Buckley KM, Kowalczyk AP. VE-cadherin: adhesion at arm's length. Am J Physiol Cell Physiol. 2004; 286:C987-C997. (Biology)

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