



T8-770-T100

Monoclonal Antibody to CD144 PE-Cy™5 conjugated (100 tests)

Clone:	55-7H1
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody 55-7H1 recognizes a calcium-independent epitope on CD144 (VE-cadherin, cadherin 5), an adhesion molecule expressed on endothelial cells.
Regulatory Status:	RUO
Immunogen:	Human endothelial cells
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with tandem dye PE-Cy™5 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD144 / VE-cadherin (cadherin 5) is the major cadherin that is present at endothelial junctions. It is also strictly endothelial specific. Under vascular permeability increasing conditions (and also in capillaries and veins) CD144 is being phosphorylated, which promotes its rapid and reversible internalization. On the contrary, binding of p120 catenin (delta1 catenin) maintains CD144 localization at the plasma membrane, which stabilizes the junction and reduces vascular permeability.

For laboratory research only, not for drug, diagnostic or other use.



Antibodies

- References:**
- *Dejana E, Orsenigo F: Endothelial adherens junctions at a glance. *J Cell Sci.* 2013 Jun 15;126(Pt 12):2545-9.
 - *Limaye V, Li X, Hahn C, Xia P, Berndt MC, Vadas MA, Gamble JR: Sphingosine kinase-1 enhances endothelial cell survival through a PECAM-1-dependent activation of PI-3K/Akt and regulation of Bcl-2 family members. *Blood.* 2005 Apr 15;105(8):3169-77
 - *Hamilton RD, Foss AJ, Leach L: Establishment of a human in vitro model of the outer blood-retinal barrier. *J Anat.* 2007 Dec;211(6):707-16
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 - *Agrawal V, Kelly J, Tottey S, Daly KA, Johnson SA, Siu BF, Reing J, Badylak SF: An isolated cryptic peptide influences osteogenesis and bone remodeling in an adult mammalian model of digit amputation. *Tissue Eng Part A.* 2011 Dec;17(23-24):3033-44.
 - *Tisato V, Zauli G, Voltan R, Giancesini S, di Iasio MG, Volpi I, Fiorentini G, Zamboni P, Secchiero P: Endothelial cells obtained from patients affected by chronic venous disease exhibit a pro-inflammatory phenotype. *PLoS One.* 2012;7(6):e39543.

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EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz