

TECHNICAL DATA SHEET

CyFlow™ CD324 APC Anti-Hu; Clone 67A4

REF AG310082

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD324
Alternative Names	E-Cadherin, CDH1, LCAM, CDHE, Arc-1, UVO
Clone	67A4
Clonality	monoclonal
Format	APC
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	T-47D cells

Specificity

The mouse monoclonal antibody 67A4 recognizes CD324 (E-cadherin) antigen, a 100 kDa epithelial cell adhesion molecule, whose detection is important for determination of invasive potential of epithelial neoplasms.

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD324 (E-cadherin) is an epithelial cell surface molecule, which provides calcium-dependent homophilic interactions with E-cadherin of another cell. These interactions take part in morphogenetic programs controlling the maintenance of the structural and functional integrity of epithelia and affect invasive potential of epithelial neoplasms. CD324 (E-cadherin) is implicated in cell growth and differentiation, cell recognition, and sorting during developmental morphogenesis, as well as in aggregation-dependent cell survival. CD324 (E-cadherin)-mediated cell adhesion system is highly regulated from inside the cell by a number of intracellular signaling pathways.

References

- Takeichi M: Cadherin cell adhesion receptors as a morphogenetic regulator. Science. 1991 Mar 22; 251(5000):1451-5. < PMID: 2006419 >
- Armeanu S, Bühring HJ, Reuss-Borst M, Müller CA, Klein G: E-cadherin is functionally involved in the maturation of the erythroid lineage. J Cell Biol. 1995 Oct; 131(1):243-9. < PMID: 7559781 >
- Bühring HJ, Müller T, Herbst R, Cole S, Rappold I, Schuller W, Zhu X, Fritzsche U, Faul C, Armeanu S, Ullrich A, Klein G, Schmidt H: The adhesion molecule E-cadherin and a surface antigen recognized by

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

- the antibody 9C4 are selectively expressed on erythroid cells of defined maturational stages. *Leukemia*. 1996 Jan; 10(1):106-1. < PMID: 8558914 >
- Pece S, Chiariello M, Murga C, Gutkind JS: Activation of the protein kinase Akt/PKB by the formation of E-cadherin-mediated cell-cell junctions: Evidence for the association of phosphatidylinositol 3-kinase with the E-cadherin adhesion complex. *J Biol Chem*. 1999 Jul 2; 274(27):19347-51. < PMID: 10383446 >
 - Pece S, Gutkind JS: Signaling from E-cadherins to the MAPK pathway by the recruitment and activation of epidermal growth factor receptors upon cell-cell contact formation. *J Biol Chem*. 2000 Dec 29; 275(52):41227-33. < PMID: 10969083 >
 - Servet-Delprat C, Vidalain PO, Bausinger H, Manié S, Le Deist F, Azocar O, Hanau D, Fischer A, Rabourdin-Combe C: Measles virus induces abnormal differentiation of CD40 ligand-activated human dendritic cells. *J Immunol*. 2000 Feb 15; 164(4):1753-60. < PMID: 10657621 >
 - Kutlesa S, Wessels JT, Speiser A, Steiert I, Müller CA, Klein G: E-cadherin-mediated interactions of thymic epithelial cells with CD103+ thymocytes lead to enhanced thymocyte cell proliferation. *J Cell Sci*. 2002 Dec 1; 115(23):4505-15. < PMID: 12414996 >
 - Novak N, Kraft S, Haberstock J, Geiger E, Allam P, Bieber T: A reducing microenvironment leads to the generation of FcεRIhigh inflammatory dendritic epidermal cells (IDEC). *J Invest Dermatol*. 2002 Oct; 119(4):842-9. < PMID: 12406329 >
 - Robertson H, Ali S, McDonnell BJ, Burt AD, Kirby JA: Chronic renal allograft dysfunction: the role of T cell-mediated tubular epithelial to mesenchymal cell transition. *J Am Soc Nephrol*. 2004 Feb; 15(2):390-7. < PMID: 14747385 >
 - Furio L, Guezennec A, Ducarre B, Guesnet J, Peguet-Navarro J: Differential effects of allergens and irritants on early differentiating monocyte-derived dendritic cells. *Eur J Dermatol*. 2008 Mar-Apr; 18(2):141-7. < PMID: 18424372 >
 - Caberg JH, Hubert PM, Begon DY, Herfs MF, Roncarati PJ, Boniver JJ, Delvenne PO: Silencing of E7 oncogene restores functional E-cadherin expression in human papillomavirus 16-transformed keratinocytes. *Carcinogenesis*. 2008 Jul; 29(7):1441-7. < PMID: 18566017 >
 - Lin JC, Liao SK, Lee EH, Hung MS, Sayion Y, Chen HC, Kang CC, Huang LS, Cherng JM: Molecular events associated with epithelial to mesenchymal transition of nasopharyngeal carcinoma cells in the absence of Epstein-Barr virus genome. *J Biomed Sci*. 2009 Nov 24; 16:105. < PMID: 19930697 >

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com