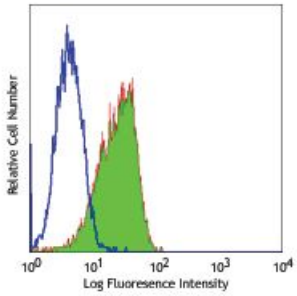
SONY

Product Data Sheet

Purified anti-human CD324 (E-Cadherin)

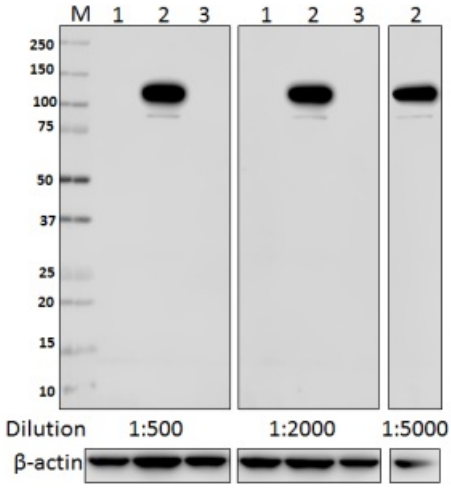
Catalog # / Size:	2220505 / 25 µg 2220510 / 100 µg
Clone:	67A4
Isotype:	Mouse IgG1, κ
Immunogen:	T-47D cells
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Workshop Number:	IV T-164
Concentration:	0.5



Human colon carcinoma cell line (HT29) stained with purified CD324 (clone 67A4) (filled histogram), or purified mouse IgG1, κ (open histogram) followed by anti-mouse IgG FITC.

Applications:

Applications:	Flow Cytometry, Other
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤2.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.



Total cell lysate (15 µg) from HeLa (negative control, lane 1), MCF-7 (lane2) and NIH3T3 (lane3) were resolved by electrophoresis (4-20% Tris-Glycine), transferred to nitrocellulose, and probed with 1:500 (1 µg/mL), 1:2000 (0.25 µg/mL) and 1:5000 (0.1 µg/mL) diluted purified anti-human CD324 (E-Cadherin) Antibody (clone 67A4). Proteins were visualized using a goat anti-mouse-IgG secondary antibody conjugated to HRP (Cat. No. 405306) and chemiluminescence detection. Direct-Blot™ HRP anti-β-actin Antibody (Cat No. 643807) was used as a loading controls (lower). Lane M is the MW ladder.

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Application References:

1. Armeanu S, *et al.* 1995. *J. Cell Biol.* 131:243.
2. BÜhring HJ, *et al.* 1996. *Leukemia* 10:106.
3. Yauch RL, *et al.* 2005. *Clin. Cancer Res.* 11:8686. (WB)
4. Oeztuerk-Winder F, *et al.* 2012. *EMBO J.* 31:3431. (FC) PubMed
5. Ardehali R, *et al.* 2013. *PNAS.* 110:3405. PubMed
6. Rasanen K, *et al.* 2013. *Mol Cell Protecomics.* 12:3778. PubMed
7. Chaudhury A, *et al.* 2014. *Nucleic Acids Res.* 42:86. PubMed
8. Milne P, *et al.* 2015. *Blood.* 125:470. PubMed

Description:

The 67A4 antibody recognizes human CD324 also known as E-cadherin, cadherin-1, and UVO. CD324, a member of the cadherin superfamily, is a calcium-dependent, transmembrane cell-cell adhesion glycoprotein composed of 4 extracellular cadherin repeats and a highly conserved cytoplasmic tail region with a predicted molecular weight of approximately 100 kD. CD324 is widely expressed in epithelial cells in the colon, uterus, liver, keratinocytes, brain, heart, muscle, kidney, and pancreas, as well as erythroid cells. CD324 functions as a cell adhesion molecule involved in development, bacterial pathogenesis, and tumor invasion. In bacterial pathogenesis, the ectodomain of CD324 mediates bacterial adhesion to mammalian cells, while the cytoplasmic domain is required for internalization. CD324 binds to the $\alpha_E\beta_7$ integrin to mediate cell adhesion and also interacts with a number of intracellular proteins including including erbin, ezrin, caspase-3, caspase 8, β-catenin, presenilin 1, casein kinase II , as well as other extracellular proteins including the EGF receptor. CD324 is phosphorylated on multiple residues (S857, S866, S870, S872), and can be proteolytically cleaved at reside D769 by caspase-3. The 67A4 antibody has been shown to be useful for flow cytometry.

Antigen References:

1. Overduin M, *et al.* 1995. *Science* 267:386.
2. Boggon TJ, *et al.* 2002. *Science* 296:1303.
3. Berx G, *et al.* 1995. *EMBO J.* 14:6107.
4. Perl AK, *et al.* 1998. *Nature* 392:190.

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