

## Biotin anti-human CD324 (E-Cadherin) Antibody

<b>Catalog# / Size</b>	324120 / 100 µg
<b>Clone</b>	67A4
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	E-Cadherin, cadherin-1, and UVO
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	<p>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 αEβ7 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 residue D769 by caspase-3. The 67A4 antibody has been shown to be useful for flow cytometry.</p>

### Product Details

<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	T-47D cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application References</b>	<ol style="list-style-type: none"> <li>Armeanu S, <i>et al.</i> 1995. <i>J. Cell Biol.</i> 131:243.</li> <li>Bühning HJ, <i>et al.</i> 1996. <i>Leukemia</i> 10:106.</li> <li>Yauch RL, <i>et al.</i> 2005. <i>Clin. Cancer Res.</i> 11:8686. (WB)</li> <li>Oeztuerk-Winder F, <i>et al.</i> 2012. <i>EMBO J.</i> 31:3431. (FC) <a href="#">PubMed</a></li> <li>Ardehali R, <i>et al.</i> 2013. <i>PNAS.</i> 110:3405. <a href="#">PubMed</a></li> <li>Rasanen K, <i>et al.</i> 2013. <i>Mol Cell Proteomics.</i> 12:3778. <a href="#">PubMed</a></li> <li>Chaudhury A, <i>et al.</i> 2014. <i>Nucleic Acids Res.</i> 42:86. <a href="#">PubMed</a></li> <li>Milne P, <i>et al.</i> 2015. <i>Blood.</i> 125:470. <a href="#">PubMed</a></li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>Zhang Z, <i>et al.</i> 2020. <i>Small.</i> e1905614:16. <a href="#">PubMed</a></li> <li>Borrelli MR, <i>et al.</i> 2020. <i>Stem Cells Transl Med.</i> 1.347916667. <a href="#">PubMed</a></li> </ol>

## Antigen Details

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<b>Structure</b>	Member of the cadherin superfamily. Calcium-dependent, transmembrane cell-cell adhesion glycoprotein composed of 4 extracellular cadherin repeats and a highly conserved cytoplasmic tail region. Predicted molecular weight approximately 100 kD.
<b>Distribution</b>	Widely expressed in epithelial cells in the colon, uterus, liver, keratinocytes, brain, heart, muscle, kidney, and pancreas, as well as erythroid cells
<b>Function</b>	Cell adhesion molecule involved in development, bacterial pathogenesis, and tumor invasion. The ectodomain of CD324 mediates bacterial adhesion to mammalian cell, while the cytoplasmic domain is required for internalization.
<b>Interaction</b>	Interacts with a variety of proteins including erbin, ezrin, caspase-3, caspase 8, EGF receptor, $\beta$ -catenin, presenilin 1, casein kinase II, and others
<b>Ligand/Receptor</b>	$\alpha$ 5 $\beta$ 7 integrin
<b>Modification</b>	Phosphorylated on multiple residues (S857, S866, S870, S872), proteolytically cleaved at residue D769 by caspase-3.
<b>Cell Type</b>	Embryonic Stem Cells, Epithelial cells, Erythrocytes
<b>Biology Area</b>	Cell Biology, Immunology, Neuroscience, Stem Cells, Synaptic Biology
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Overduin M, <i>et al.</i> 1995. <i>Science</i> 267:386.</li><li>2. Boggon TJ, <i>et al.</i> 2002. <i>Science</i> 296:1303.</li><li>3. Berx G, <i>et al.</i> 1995. <i>EMBO J.</i> 14:6107.</li><li>4. Perl AK, <i>et al.</i> 1998. <i>Nature</i> 392:190.</li></ol>
<b>Gene ID</b>	<a href="#">999</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

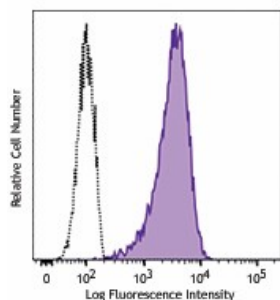
## Other Formats

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Purified anti-human CD324 (E-Cadherin), FITC anti-human CD324 (E-Cadherin), PE anti-human CD324 (E-Cadherin), APC anti-human CD324 (E-Cadherin), Alexa Fluor® 488 anti-human CD324 (E-Cadherin), Alexa Fluor® 647 anti-human CD324 (E-Cadherin), PerCP/Cyanine5.5 anti-human CD324 (E-Cadherin), PE/Cyanine7 anti-human CD324 (E-Cadherin), Alexa Fluor® 594 anti-human CD324 (E-Cadherin), APC/Fire™ 750 anti-human CD324 (E-Cadherin), Biotin anti-human CD324 (E-Cadherin), TotalSeq™-A0135 anti-human CD324 (E-Cadherin), TotalSeq™-C0135 anti-human CD324 (E-Cadherin), TotalSeq™-B0135 anti-human CD324 (E-Cadherin)

## Product Data

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Human colon carcinoma cell line HT-29 was stained with biotinylated CD324 (clone 67A4, filled histogram) or biotinylated mouse IgG1,  $\kappa$  isotype control (open histogram), followed by Sav-PE.

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