

TotalSeq™-A0135 anti-human CD324 (E-Cadherin) Antibody

Catalog# / Size	324125 / 10 µg
Clone	67A4
Regulatory Status	RUO
Other Names	E-Cadherin, cadherin-1, and UVO
Isotype	Mouse IgG1, κ
Barcode Sequence	ATCCTTCTCCCTTC
Description	<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

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	T-47D cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA.
Preparation	The antibody was purified by chromatography and conjugated with TotalSeq™-A oligomer under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	PG - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis and the oligomer sequence is confirmed by sequencing. TotalSeq™-A antibodies are compatible with 10x Genomics Single Cell Gene Expression Solutions.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
Additional Product Notes	TotalSeq™ reagents are designed to profile protein levels at a single cell level following an

optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. [10x Genomics Chromium System and Reagents](#)) and sequencer (e.g. Illumina analyzers) are required. Please contact [technical support](#) for more information, or visit [biolegend.com/totalseq](#).

The barcode flanking sequences are CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA*A*A (capture sequence). B represents either C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

Application References

(PubMed link indicates BioLegend citation)

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 Proteomics.* 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](#)

Product Citations

1. Hao Y, *et al.* 2021. *Cell.* 184:3573. [PubMed](#)

RRID

AB_2750361 (BioLegend Cat. No. 324125)

Antigen Details

Structure	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.
Distribution	Widely expressed in epithelial cells in the colon, uterus, liver, keratinocytes, brain, heart, muscle, kidney, and pancreas, as well as erythroid cells
Function	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.
Interaction	Interacts with a variety of proteins including erbin, ezrin, caspase-3, caspase 8, EGF receptor, β -catenin, presenilin 1, casein kinase II, and others
Ligand/Receptor	$\alpha\beta$ 7 integrin
Modification	Phosphorylated on multiple residues (S857, S866, S870, S872), proteolytically cleaved at residue D769 by caspase-3.
Cell Type	Embryonic Stem Cells, Epithelial cells, Erythrocytes
Biology Area	Cell Biology, Immunology, Neuroscience, Stem Cells, Synaptic Biology
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	<ol style="list-style-type: none">1. Overduin M, <i>et al.</i> 1995. <i>Science</i> 267:386.2. Boggon TJ, <i>et al.</i> 2002. <i>Science</i> 296:1303.3. Berx G, <i>et al.</i> 1995. <i>EMBO J.</i> 14:6107.4. Perl AK, <i>et al.</i> 1998. <i>Nature</i> 392:190.
Gene ID	999

Related Protocols

[TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 Protocol](#)

Other Formats

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)

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