

PE anti-mouse/human CD324 (E-Cadherin) Antibody

Catalog# / Size	147303 / 25 µg 147304 / 100 µg
Clone	DECMA-1
Regulatory Status	RUO
Other Names	E-Cadherin, Cadherin-1, CDH1, and UVO
Isotype	Rat IgG1, κ
Description	CD324, also known as E-cadherin, cadherin-1, CDH1, and UVO is a member of the cadherin superfamily. It is a calcium-dependent, transmembrane cell-cell adhesion glycoprotein composed of four extracellular cadherin repeats and a highly conserved cytoplasmic tail region. 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, and casein kinase II as well as other extracellular proteins including the EGF receptor.

Product Details

Verified Reactivity	Mouse, Human
Reported Reactivity	Cynomolgus, Dog, Pig
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	E-Cadherin extracellular domain
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	0.2 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
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 ≤1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported applications (for relevant formats) include: immunoprecipitation ¹ , Western Blotting ¹ , immunomicroscopy ³ , biological function ^{1,2} , and spatial biology (IBEX) ^{4,5} .
Application References	<ol style="list-style-type: none"> 1. Vestweber D, <i>et al.</i> 1985. <i>EMBO</i>. 4:3393. (IP, WB, FA) 2. Nakagawa M, <i>et al.</i> 2001. <i>J. Cell Sci.</i> 114:1829. (FA in canine cells) 3. Mohamet L, <i>et al.</i> 2010. <i>PLoS ONE</i>. 5:e12921. (IF) 4. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci U S A</i>. 117:33455-65. (SB) PubMed 5. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc</i>. 17:378-401. (SB) PubMed
(PubMed link indicates BioLegend citation)	

Product Citations

1. Xing J, *et al.* 2021. *Cell Reports*. 35(12):109205. [PubMed](#)
2. Bracey NA, *et al.* 2021. *Life Sci Alliance*. 4:00. [PubMed](#)
3. Somerville TD, *et al.* 2020. *eLife*. 9:e53381.. [PubMed](#)
4. Little DR, *et al.* 2021. *Nat Commun*. 12:2509. [PubMed](#)
5. Helm M, *et al.* 2022. *Life (Basel)*. 12:. [PubMed](#)
6. Zhang X, *et al.* 2019. *iScience*. 19:607. [PubMed](#)
7. Zhang J, *et al.* 2018. *Cell Death Dis*. 9:224. [PubMed](#)
8. Ben-Moshe S, *et al.* 2019. *Nat Metab*. 1:899. [PubMed](#)
9. Bagati A, *et al.* 2020. *Cancer Cell*. 39(1):54-67.e9. [PubMed](#)
10. Schwarz BA *et al.* 2018. *Cell stem cell*. 23(2):289-305 . [PubMed](#)

RRID AB_2563039 (BioLegend Cat. No. 147303)
 AB_2563040 (BioLegend Cat. No. 147304)

Antigen Details

Structure	Member of the cadherin superfamily. Calcium-dependent, transmembrane cell-cell adhesion glycoprotein composed of four extracellular cadherin repeats and a highly conserved cytoplasmic tail region.
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 cells, 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	α E β 7 integrin.
Cell Type	Embryonic Stem Cells
Biology Area	Cell Adhesion, Cell Biology, Immunology, Innate Immunity, 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> 296:1308. 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 12550

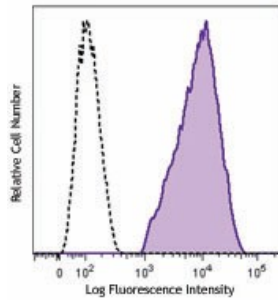
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-mouse/human CD324 (E-Cadherin), PE anti-mouse/human CD324 (E-Cadherin), Alexa Fluor® 594 anti-mouse/human CD324 (E-Cadherin), Alexa Fluor® 647 anti-mouse/human CD324 (E-Cadherin), PE/Cyanine7 anti-mouse/human CD324 (E-Cadherin), PE/Dazzle™ 594 anti-mouse/human CD324 (E-Cadherin), PerCP/Cyanine5.5 anti-mouse/human CD324 (E-Cadherin), APC anti-mouse/human CD324 (E-Cadherin), Brilliant Violet 421™ anti-mouse/human CD324 (E-Cadherin), APC/Fire™ 750 anti-mouse/human CD324 (E-Cadherin)

Product Data



MDCK epithelial cell line was stained with CD324 (clone DECMA-1) PE (filled histogram) or rat IgG1, κ PE isotype control (open histogram).

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587