

CD324 (E-Cadherin) Monoclonal Antibody (DECMA-1), eFluor™ 660, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Dog, Human, Mouse
Published Species	Hamster, Mouse, Human
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), eFluor™ 660, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	DECMA-1
Conjugate	eFluor™ 660
Excitation/Emission Max	651/668 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_11040003

Applications	Tested Dilution	Publications
Western Blot (WB)	-	4 Publications
Immunohistochemistry (IHC)	-	8 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	2 Publications
Immunocytochemistry (ICC/IF)	2 µg/mL	11 Publications
Flow Cytometry (Flow)	0.5 µg/test	15 Publications
Neutralization (Neu)	-	2 Publications
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

Description: The monoclonal antibody DECMA-1 recognizes mouse, human and canine CD324 also known as E-cadherin (Epithelial cadherin) or uvomorulin. Like the other cadherin family members P and N cadherin, E-cadherin is a transmembrane glycoprotein involved in intercellular adhesion. These proteins share a common basic structure. The extracellular portions of the proteins are largely composed of repeating domains, each with two consensus Ca²⁺-binding motifs. The cytoplasmic domain interacts with α-, β-, and γ-catenins and actinins. These catenins connect E-cadherin with the cytoskeleton.

Expression is found in most epidermal cells including melanocytes and keratinocytes. E-cadherin is localized at the intercellular boundaries of epithelial cells in several tissues, and is thought to play a role in maintenance of tissue integrity. Loss of E-cadherin function has been implicated in the progression of a variety of cancers.

E-Cadherin protein is sensitive to trypsin treatment, so exposure to trypsin should be minimized or avoided.

The monoclonal antibody DECMA-1 has been shown to have functional activity by disrupting adhesion in human, mouse and dog cells.

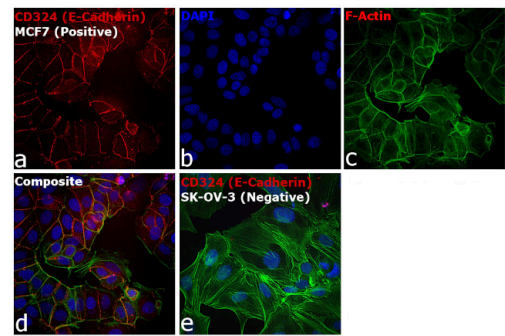
Applications Reported: This DECMA-1 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This DECMA-1 antibody has been tested by flow cytometric analysis of MDCK cell line. Optimal staining is achieved by intracellular staining as protein turnover can result in variable surface staining. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

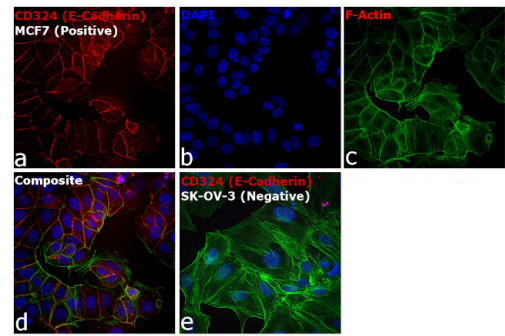
eFluor® 660 is a replacement for Alexa Fluor® 647. eFluor® 660 emits at 659 nm and is excited with the red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

Excitation: 633-647 nm; Emission: 668 nm; Laser: Red Laser.

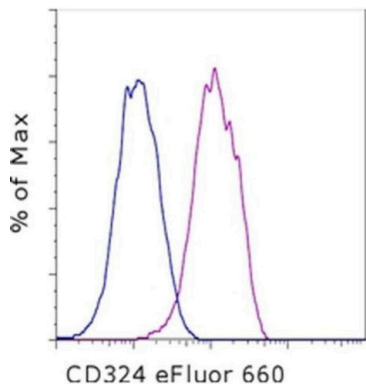
Filtration: 0.2 µm post-manufacturing filtered.



CD324 (E-Cadherin) Antibody (50-3249-82)
Antibody specificity was demonstrated by detection of differential basal expression of the target across cell models owing to their inherent genetic constitution. Immunofluorescence analysis using CD324 (E-Cadherin) Monoclonal Antibody (DECMA-1), eFluor™ 660, eBioscience™ (Product # 50-3249-82) shows expression of CD324 (E-Cadherin) in MCF7 when compared to no expression in SK-OV-3 cells. {RE}



CD324 (E-Cadherin) Antibody (50-3249-82) in ICC/IF
Immunofluorescence analysis of CD324 (E-Cadherin) was performed using 70 % confluent log phase MCF7 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton X-100 for 15 minutes, and blocked with 2% BSA for 1 hour at room temperature. The cells were labeled with CD324 (E-Cadherin) Monoclonal Antibody (DECMA-1), eFluor™ 660, eBioscience™ (Product # 50-3249-82) at 2 µg/mL in 0.1% BSA, incubated at 4 degree celsius overnight. (Panel a: Red). Nuclei (Panel b: Blue) were stained with Hoechst 33342 (Product # H1399). F-actin (Panel c: Green) was stained with Alexa Fluor™ 488 Phalloidin (Product # A12379, 1:500 dilution). Panel d represents the merged image showing cell membrane and cell junction like localization. Panel e represents SK-OV-3 showing no expression of CD324 (E-Cadherin) The images were captured at 40X magnification in CellInsight CX7 LZR High-Content Screening (HCS) Platform (Product # CX7A1110LZR) and externally deconvoluted (D.Sage et al. / Methods 115 (2017) 28–41).



CD324 (E-Cadherin) Antibody (50-3249-82) in Flow
Intracellular staining of MDCK cells with 0.25 µg of Rat IgG1 K Isotype Control eFluor® 660 (Product # 50-4301-82) (blue histogram) or 0.25 µg of Anti-CD324 (E-Cadherin) eFluor® 660 (purple histogram) (left). Total viable cells were used for analysis.

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Western Blot (4)

<p>Oncology letters</p> <p>Aspirin increases the efficacy of gemcitabine in pancreatic cancer by modulating the PI3K/AKT/mTOR signaling pathway and reversing epithelialmesenchymal transition.</p> <p>"Published figure using CD324 (E-Cadherin) monoclonal antibody (Product # 50-3249-82) in Western Blot"</p> <p>Authors: Zhou H,Yun X,Shu Y,Xu K</p>	<p>Year</p> <p>2023</p>
<p>Journal of oncology</p> <p>Low-Dose Albendazole Inhibits Epithelial-Mesenchymal Transition of Melanoma Cells by Enhancing Phosphorylated GSK-3/Tyr216 Accumulation.</p> <p>"Published figure using CD324 (E-Cadherin) monoclonal antibody (Product # 50-3249-82) in Western Blot"</p> <p>Authors: He Z,Lei S,Liang F,Tan L,Zhang W,Xie L,Zheng H,Lu Y</p>	<p>Year</p> <p>2021</p>

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Immunohistochemistry (8)

<p>International journal of chronic obstructive pulmonary disease</p> <p>Human Adipose-Derived Mesenchymal Stem Cells Ameliorate Elastase-Induced Emphysema in Mice by Mesenchymal-Epithelial Transition.</p> <p>"Published figure using CD324 (E-Cadherin) monoclonal antibody (Product # 50-3249-82) in Immunocytochemistry"</p> <p>Authors: Fujioka N,Kitabatake M,Ouji-Sageshima N,Ibaraki T,Kumamoto M,Fujita Y,Hontsu S,Yamauchi M,Yoshikawa M,Muro S,Ito T</p>	<p>Year</p> <p>2021</p>
<p>Development (Cambridge, England)</p> <p>Opposing effects of Wnt/-catenin signaling on epithelial and mesenchymal cell fate in the developing cochlea.</p> <p>"Published figure using CD324 (E-Cadherin) monoclonal antibody (Product # 50-3249-82) in Immunohistochemistry"</p> <p>Authors: Billings SE,Myers NM,Quiruz L,Cheng AG</p>	<p>Year</p> <p>2021</p>

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- IHC (PFA) (2)
- ICC/IF (11)
- Flow (15)
- Neu (2)
- Misc (1)

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