

CD324 (E-Cadherin) Monoclonal Antibody (DECMA-1), Functional Grade, eBioscience™

Product Details	
Size	5 mg
Species Reactivity	Dog, Human, Mouse
Published Species	C. elegans, Human, Mouse
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	DECMA-1
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4°C
RRID	AB_2865952

Applications	Tested Dilution	Publications
Western Blot (WB)	-	5 Publications
Immunohistochemistry (IHC)	-	8 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	3 Publications
Immunocytochemistry (ICC/IF)	5 µg/mL	13 Publications
Flow Cytometry (Flow)	1 µg/test	10 Publications
Neutralization (Neu)	Assay-Dependent	3 Publications
Functional Assay (Functional)	Assay-Dependent	-
Inhibition Assays (Inhibition)	-	1 Publication
Miscellaneous PubMed (Misc)	-	2 Publications

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 functional blocking assays and flow cytometric analysis.

Applications Tested: This DECMA-1 antibody has been tested by flow cytometric analysis of cell lines. 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 1 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.

Storage and handling: Use in a sterile environment.

Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

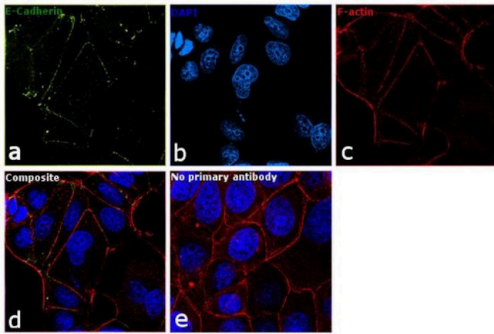
Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

Product Images For CD324 (E-Cadherin) Monoclonal Antibody (DECMA-1), Functional Grade, eBioscience™

CD324 (E-Cadherin) Antibody (16-3249-38) in ICC/IF

Immunofluorescence analysis of E-cadherin was performed using 90% 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 1% BSA for 1 hour at room temperature. The cells were labeled with CD324 (E-Cadherin) Monoclonal Antibody (DECMA-1) (Product # 16-3249-82) at 5 µg /mL in 0.1% BSA, incubated at 4 degree Celsius overnight and then labeled with Goat anti-Rat IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A-11006) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing plasma membrane localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



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Western Blot (5)

BMC medicine

Hypoxia enhances anti-fibrotic properties of extracellular vesicles derived from hiPSCs via the miR302b-3p/TGF/SMAD2 axis.

"Published figure using CD324 (E-Cadherin) monoclonal antibody (Product # 16-3249-82) in Western Blot"

Authors: Paw M, Kusiak AA, Nit K, Litewka JJ, Piejko M, Wnuk D, Sarna M, Fic K, Stopa KB, Hammad R, Barczyk-Woznicka O, Cathomen T, Zuba-Surma E, Madeja Z, Ferdek PE, Bobis-Wozowicz S

Year
2023

Oncology letters

Aspirin increases the efficacy of gemcitabine in pancreatic cancer by modulating the PI3K/AKT/mTOR signaling pathway and reversing epithelial-mesenchymal transition.

"Published figure using CD324 (E-Cadherin) monoclonal antibody (Product # 16-3249-82) in Western Blot"

Authors: Zhou H, Yun X, Shu Y, Xu K

Year
2023

[View more WB references on thermofisher.cn](#)

Immunohistochemistry (8)

International journal of chronic obstructive pulmonary disease

Human Adipose-Derived Mesenchymal Stem Cells Ameliorate Elastase-Induced Emphysema in Mice by Mesenchymal-Epithelial Transition.

"Published figure using CD324 (E-Cadherin) monoclonal antibody (Product # 16-3249-82) in Immunocytochemistry"

Authors: Fujioka N, Kitabatake M, Ouji-Sageshima N, Ibaraki T, Kumamoto M, Fujita Y, Hontsu S, Yamauchi M, Yoshikawa M, Muro S, Ito T

Year
2021

Development (Cambridge, England)

Opposing effects of Wnt/-catenin signaling on epithelial and mesenchymal cell fate in the developing cochlea.

"Published figure using CD324 (E-Cadherin) monoclonal antibody (Product # 16-3249-82) in Immunohistochemistry"

Authors: Billings SE, Myers NM, Quiruz L, Cheng AG

Year
2021

[View more IHC references on thermofisher.cn](#)

More applications with references on thermofisher.cn

IHC (PFA) (3)

ICC/IF (13)

Flow (10)

Neu (3)

Inhibition (1)

Misc (2)

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