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

Product Details	
Size	100 µg
Species Reactivity	Dog, Human, Mouse
Published Species	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_10734213

Applications	Tested Dilution	Publications
Western Blot (WB)	-	4 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	2 Publications
Functional Assay (FN)	Assay-Dependent	-
Inhibition Assays (IA)	-	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 a-, b-, and g-catenins and actinins. These catenins connect E-cadherin with the cytoskeleton. Expression is found in most epidermal cells including melanocytes and kerotinocytes. 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 10^5 to 10^8 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.

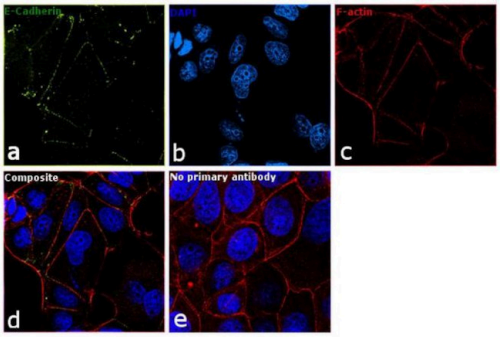
Filtration: 0.2 µm post-manufacturing filtered.

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 (16-3249-82) 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.

View more figures on thermofisher.com

41 References

Western Blot (4)

Oncology letters

Year
2023

Aspirin increases the efficacy of gemcitabine in pancreatic cancer by modulating the PI3K/AKT/mTOR signaling pathway and reversing epithelialmesenchymal 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

Journal of oncology

Year
2021

Low-Dose Albendazole Inhibits Epithelial-Mesenchymal Transition of Melanoma Cells by Enhancing Phosphorylated GSK-3/Tyr216 Accumulation.

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

Authors: He Z,Lei S,Liang F,Tan L,Zhang W,Xie L,Zheng H,Lu Y

View more WB references on thermofisher.com

Immunohistochemistry (8)

International journal of chronic obstructive pulmonary disease

Year
2021

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

Development (Cambridge, England)

Year
2021

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

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IHC (PFA) (3) **ICC/IF (13)** **Flow (10)** **Neu (2)** **IA (1)**