

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

Product Details	
Size	100 µg
Species Reactivity	Dog, Human, Mouse
Published Species	Human, Mouse
Host/Isotype	Rat / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	DECMA-1
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_1210458

Applications	Tested Dilution	Publications
Western Blot (WB)	2 µg/mL	5 Publications
Immunohistochemistry (IHC)	-	15 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	3 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	2 Publications
Immunocytochemistry (ICC/IF)	5 µg/mL	14 Publications
Flow Cytometry (Flow)	Assay-Dependent	10 Publications
ELISA (ELISA)	Assay-Dependent	-
Immunoprecipitation (IP)	Assay-Dependent	-
Neutralization (Neu)	-	2 Publications
Functional Assay (FN)	Assay-Dependent	-
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, immunoprecipitation, western blotting, immunohistochemical staining of frozen tissue sections, and ELISA. (Please use Functional Grade purified DECMA-1, cat. 16-3249, in functional assays.).

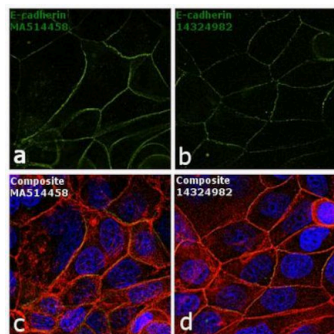
Applications Tested: This DECMA-1 antibody has been tested by western blot analysis of EDTA treated MDCK cell line. This can be used at less than or equal to 2 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

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

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

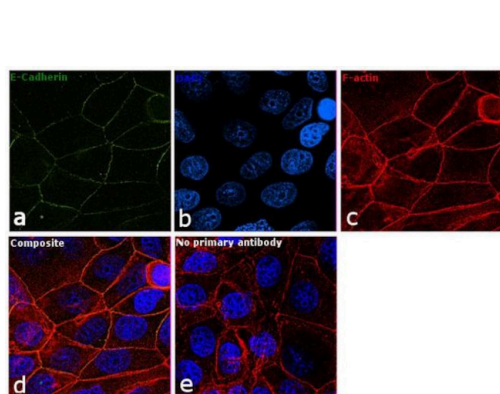
Filtration: 0.2 µm post-manufacturing filtered.

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



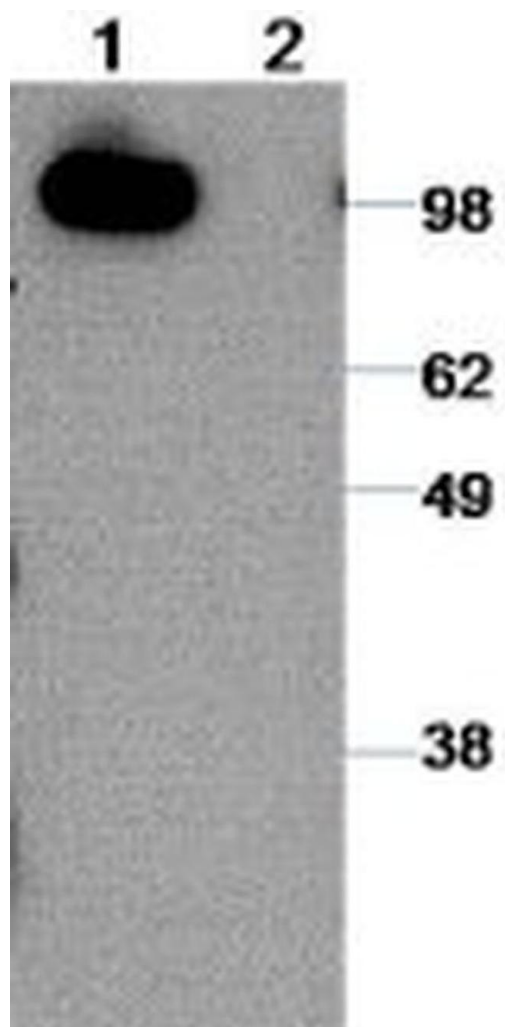
CD324 (E-Cadherin) Antibody (14-3249-82)

Antibody specificity was demonstrated by showing that antibodies raised against the same target protein perform similarly. Immunofluorescence of E-cadherin using CD324 (E-Cadherin) Monoclonal Antibody (Product # 14-3249-82) performed along with another E-cadherin antibody (Product # MA5-14458) shows similar localization pattern in MCF7 cells. {IAV}



CD324 (E-Cadherin) Antibody (14-3249-82) 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 # 14-3249-82) 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.



CD324 (E-Cadherin) Antibody (14-3249-82) in WB

Immunoblot analysis of reduced MDCK cell line lysates with 2 µg/mL of Anti-Human CD324 (E-Cadherin) Purified and revealed with Anti-Rat IgG HRP. Lane 1: EDTA treated cells and Lane 2: Trypsin treated cells to remove from tissue culture dish.

View more figures on thermofisher.com

🔍 52 References

Western Blot (5)

Oncology letters

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 # 14-3249-82) in Western Blot"

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

Year
2023

Species
Human

Dilution
1:1000

Journal of oncology

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 # 14-3249-82) in Western Blot"

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

Year
2021

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

Immunohistochemistry (15)

Frontiers in cell and developmental biology

Celsr1 and Celsr2 exhibit distinct adhesive interactions and contributions to planar cell polarity.

"14-3249-82 was used in Immunohistochemistry-immunofluorescence to find that using two new CRISPR/Cas9-targeted Celsr1 and Celsr2 knockout mouse lines, and define the relative contributions of Celsr1 and Celsr2 to PCP establishment in the ski."

Authors: Basta LP,Sil P,Jones RA,Little KA,Hayward-Lara G,Devenport D

Year
2023

Species
Mouse

Dilution
1:1000

Cell reports

TRPV6 channel mediates alcohol-induced gut barrier dysfunction and systemic response.

"14-3249-82 was used in Immunohistochemistry-immunofluorescence to identify TRPV6, a Ca2+-permeable channel, as responsible for alcohol-induced elevation of intracellular Ca2+, intestinal barrier dysfunction, and systemic inflammation."

Authors: Meena AS,Shukla PK,Bell B,Giorgianni F,Caires R,Fernández-Peña C,Beranova S,Aihara E,Montrose MH,Chaib M,Makowski L,Neeli I,Radic MZ,Vásquez V,Jaggar JH,Cordero-Morales JF,Rao R

Year
2022

Species
Mouse

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

More applications with references on thermofisher.com

- IHC (PFA) (3)
- IHC (F) (2)
- ICC/IF (14)
- Flow (10)
- Neu (2)
- Misc (1)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.