

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

Product Details

Size	25 µg
Species Reactivity	Dog, Human, Mouse
Published Species	Dog, C. elegans, Fruit fly, 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_1210459

Applications	Tested Dilution	Publications
Western Blot (WB)	2 µg/mL	8 Publications
Immunohistochemistry (IHC)	-	22 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	3 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	2 Publications
Immunocytochemistry (ICC/IF)	5 µg/mL	20 Publications
Flow Cytometry (Flow)	Assay-Dependent	11 Publications
ELISA (ELISA)	Assay-Dependent	-
Immunoprecipitation (IP)	Assay-Dependent	-
Neutralization (Neu)	-	3 Publications
Functional Assay (Functional)	Assay-Dependent	-
Inhibition Assays (Inhibition)	-	1 Publication
Affinity Purification (AP)	-	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 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 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, Product # 16-3249-85 , in functional assays).

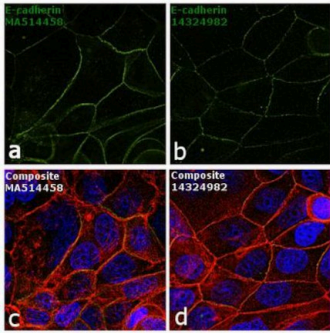
Applications Tested: This DECMA-1 antibody has been tested by western blot analysis of EDTA treated MDCK cell line. This can be used at less than or equal to 2 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

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™

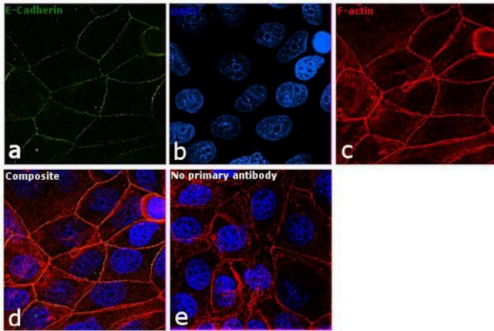


CD324 (E-Cadherin) Antibody (14-3249-80)

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}

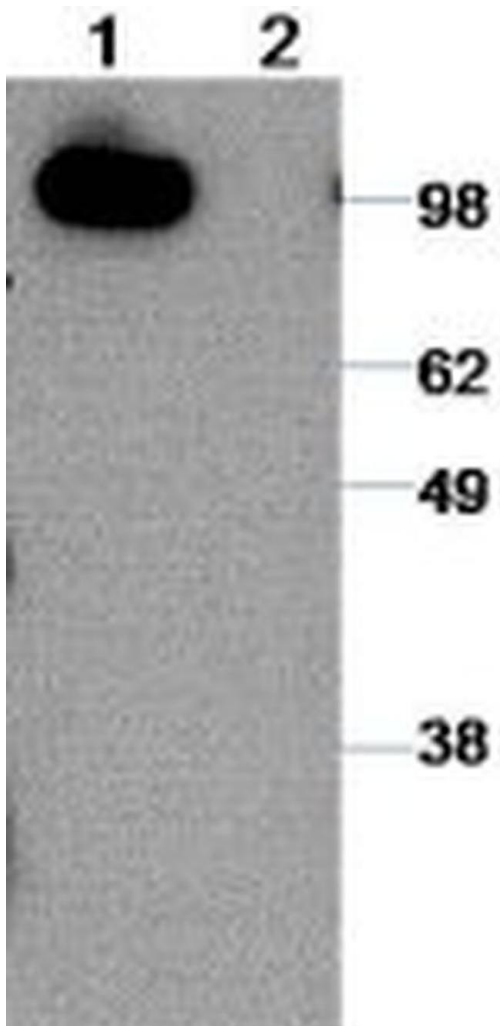
CD324 (E-Cadherin) Antibody (14-3249-80) in ICC/IF

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 (14-3249-80) 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.cn

74 References

Western Blot (8)

BMC medicine

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

"14-3249-82 was used in Western Blot to provide evidence of superior anti-fibrotic properties of EV-H5 over EV-N or EV-H3."

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

Species
Human

Dilution
1:500

The journal of pathology. Clinical research

KLF2 inhibits colorectal cancer progression and metastasis by inducing ferroptosis via the PI3K/AKT signaling pathway.

"14-3249 was used in Western Blotting to report for the first time that KLF2 acts as a tumor suppressor in CRC by inducing ferroptosis via inhibiting the PI3K/AKT signaling pathway, thus providing a new direction for CRC prognosis assessment and targeted therapy."

Authors: Li J, Jiang JL, Chen YM, Lu WQ

Year
2023

Species
Human

Dilution
1:1,000

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

Immunohistochemistry (22)

Nature

Mechanisms that clear mutations drive field cancerization in mammary tissue.

"14-3249 was used in Immunohistochemistry-immunofluorescence to use lineage tracing to map the fate of wild-type and Brca1^{-/-};Trp53^{-/-} cells, and find that both follow a similar pattern of loss and spread within ducts."

Authors: Ciwinska M, Messal HA, Hristova HR, Lutz C, Bornes L, Chalkiadakis T, Harkes R, Langedijk NSM, Hutten SJ, Menezes RX, Jonkers J, Prekovic S, Simons BD, Scheele CLGJ, van Rheenen J

Year
2024

Species
C. elegans

Dilution
1:75

Methods in molecular biology (Clifton, N.J.)

Evaluating Planar Cell Polarity in the Developing Mouse Epidermis.

"14-3249 was used in Immunohistochemistry-immunofluorescence to provide methods to analyze the planar organization of hair follicles within the mouse epidermis."

Authors: Cetera M, Sharan R, Hayward-Lara G, Devenport D

Year
2024

Species
Fruit fly

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

More applications with references on thermofisher.cn

IHC (P) (1)

IHC (PFA) (3)

IHC (F) (2)

ICC/IF (20)

Flow (11)

Neu (3)

Inhibition (1)

AP (2)

Misc (1)

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