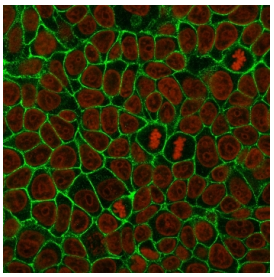
Cadherin 1 Antibody for IF / E-cadherin Immunofluorescence Antibody - Epithelial Cell Boundary Marker [clone 4A2] (V3232)

Catalog No.	Formulation	Size
V3232-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3232-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3232SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

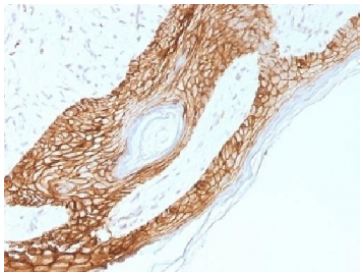
Citations (23)

Bulk quote request

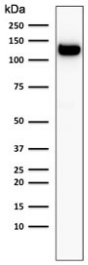
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	4A2
Purity	Protein G affinity chromatography
UniProt	P12830
Localization	Cytoplasmic, membranous
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-4ug/ml Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Cadherin 1 Antibody for IF / E-cadherin Immunofluorescence Antibody - Epithelial Cell Boundary Marker is available for research use only.



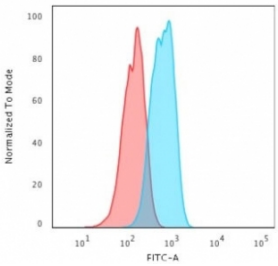
Cadherin 1 Antibody for IF. Immunofluorescence analysis of E-Cadherin / CDH1 expression in human MCF7 cells using clone 4A2 antibody (green), showing sharp membrane staining outlining individual epithelial cell boundaries, with Reddot nuclear stain (red). Signal highlights clear cell perimeter definition and uniform epithelial cell organization across the monolayer.



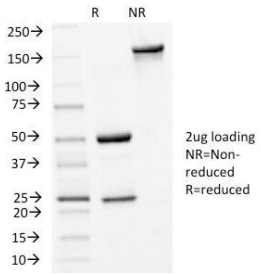
IHC testing of FFPE human skin with E-Cadherin/Cadherin 1 antibody (clone 4A2). Required HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min.



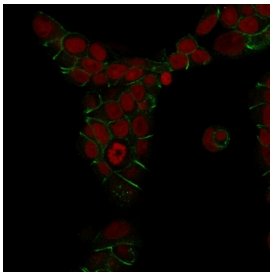
Western blot testing of human MCF-7 cell lysate with E-Cadherin/Cadherin 1 antibody (clone 4A2). Expected molecular weight: 135 kDa (precursor), 80-120 kDa (mature, depending on glycosylation level).



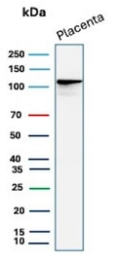
Flow cytometry testing of human MCF7 cells with E-Cadherin/Cadherin 1 antibody (clone 4A2); Red=isotype control, Blue= E-Cadherin antibody.



SDS-PAGE analysis of purified, BSA-free E-Cadherin/Cadherin 1 antibody (clone 4A2) as confirmation of integrity and purity.



Cadherin 1 Antibody for IF in methanol-fixed human MCF7 cells. Immunofluorescence analysis of E-Cadherin / CDH1 expression using clone 4A2 antibody (green), showing distinct membrane staining outlining individual epithelial cell boundaries, with Reddot nuclear stain (red). Signal highlights clear cell perimeter definition and preserved cell-cell contacts under methanol fixation conditions.



Western blot testing of human placental tissue lysate with E-Cadherin/Cadherin 1 antibody (clone 4A2). Expected molecular weight: 135 kDa (precursor), 80-120 kDa (mature, depending on glycosylation level).

Description

Cadherin 1 (CDH1), commonly known as E-cadherin, is a transmembrane adhesion protein that defines epithelial cell boundaries through calcium-dependent homophilic interactions. CDH1 localizes to the lateral plasma membrane, where it forms adherens junctions that establish clear separation between neighboring cells and maintain epithelial organization. Cadherin 1 Antibody for IF enables precise visualization of these cell boundaries in cultured cells, making it an essential tool for studying epithelial morphology and cellular arrangement. CDH1 is widely referred to as E-cadherin antibody and serves as a key marker of epithelial identity and structural organization.

Cadherin 1 Antibody for IF / E-cadherin Immunofluorescence Antibody - Epithelial Cell Boundary Marker (clone 4A2) is specifically optimized for imaging applications that emphasize delineation of individual cell borders. The mouse monoclonal clone 4A2 antibody produces strong and well-defined membrane staining in epithelial cell models such as MCF7, clearly outlining each cell and enabling accurate visualization of cell perimeter and morphology. This clone 4A2 antibody supports consistent fluorescence imaging and is particularly useful for studies requiring high-contrast boundary definition.

In immunofluorescence assays, Cadherin 1 antibody generates a distinct membrane staining pattern that traces the outline of each cell, allowing detailed assessment of cell shape, size, and arrangement within epithelial monolayers. This boundary-focused visualization is critical for analyzing cell packing density, epithelial sheet organization, and morphological changes under different experimental conditions. Uniform and continuous staining indicates intact epithelial structure, while irregular or fragmented boundaries may reflect altered adhesion or cellular transformation.

Clear visualization of cell boundaries is essential for understanding epithelial dynamics, including proliferation, migration, and differentiation. E-cadherin plays a central role in maintaining these boundaries through its interactions with intracellular proteins such as beta-catenin, which link adhesion complexes to the actin cytoskeleton. Cadherin 1 immunofluorescence antibody enables visualization of these boundary-defining structures and supports studies of epithelial organization at the single-cell level.

This Cadherin 1 antibody is particularly effective for fluorescence-based imaging workflows focused on cell boundary definition and epithelial morphology. The sharp and continuous membrane staining produced by clone 4A2 allows precise interpretation of cellular organization and supports detailed analysis of epithelial structure and arrangement.

This antibody is part of the CDH1 antibody collection, where multiple E-cadherin antibody formats and applications are available for studying epithelial adhesion and cancer progression.

Application Notes

Optimal dilution of the Cadherin 1 Antibody for IF / E-cadherin Immunofluorescence Antibody - Epithelial Cell Boundary Marker should be determined by the researcher.

Immunogen

A recombinant human protein was used as the immunogen for the E-Cadherin/Cadherin 1 antibody.

Storage

Store the E-Cadherin/Cadherin 1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

E-cadherin antibody, CDH1 antibody, Cadherin 1 IF antibody, cell boundary marker antibody, epithelial border antibody

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