abcam

ab314063

Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.8 - 8.6 Preservative: 0.09% Sodium azide Constituents: 98% Borate buffered saline
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human CDH1 aa 150 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P12830
Clone number	BLR088G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Target data

See full target information E-Cadherin/CD324

Function

Cadherins are calcium-dependent cell adhesion proteins (PubMed:11976333). They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. CDH1 is involved in mechanisms regulating cell-cell adhesions, mobility and proliferation of epithelial cells (PubMed:11976333). Promotes organization of radial actin fiber structure and cellular response to contractile forces, via its interaction with AMOTL2 which facilitates anchoring of radial actin fibers to CDH1 junction complexes at the cell membrane (By similarity). Plays a role in the early stages of desmosome cell-cell junction formation via facilitating the recruitment of DSG2 and DSP to desmosome plaques (PubMed:29999492). Has a potent invasive suppressor role. It is a ligand for integrin alpha-E/beta-7. E-Cad/CTF2 promotes non-amyloidogenic degradation of Abeta precursors. Has a strong inhibitory effect on APP C99 and C83 production. (Microbial infection) Serves as a receptor for Listeria monocytogenes; internalin A (InlA) binds to this protein and promotes uptake of the bacteria.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	Up to 12 months
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	+4°C

Notes

REACH authorisation
Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	E-Cadherin sometimes called CDH1 or Cadherin-1 is a protein that plays a role in cell-to-cell adhesion. This transmembrane protein has a molecular weight of approximately 120 kDa. E-Cadherin is mainly expressed in epithelial tissues of various organs including the skin and gut. Its adhesive function is made possible by its extracellular domain that facilitates homophilic binding between cells contributing to the maintenance of tissue architecture and cellular integrity.
Biological function summary	E-Cadherin participates in establishing and maintaining adherens junctions which are vital for tissue structure. E-Cadherin operates as a core component of the cadherin-catenin complex which links the protein to the actin cytoskeleton. Through this linkage E-Cadherin plays an important role in signaling pathways that influence cellular growth and differentiation. The protein's ability to mediate intercellular connections also regulates cellular motility and supports basic aspects of cell behavior in epithelial tissues.
Pathways	E-Cadherin influences both the Wnt signaling pathway and the epithelial-to-mesenchymal transition (EMT). Within the Wnt signaling pathway E-Cadherin partners with β-catenin a significant player in transcription regulation and cell signaling. Disruption in E-Cadherin's adhesive functionality can lead to increased β-catenin availability affecting downstream transcriptional control. In the EMT process E-Cadherin loss characterizes an important step in which cells gain migratory and invasive properties typically seen during metastasis in cancer progression.
Associated diseases and disorders	E-Cadherin's role is prominent in cancer particularly in the context of gastric and breast cancers. Mutations or altered expression of E-Cadherin lead to diminished cell adhesion promoting tumorigenesis and metastatic spread. In gastric cancer for instance mutated E-Cadherin often associates with loss of epithelial function facilitating cancer cell dissemination. Additionally its loss or dysfunction may correlate with proteins such as β-catenin further impacting cancer progression and pathology.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

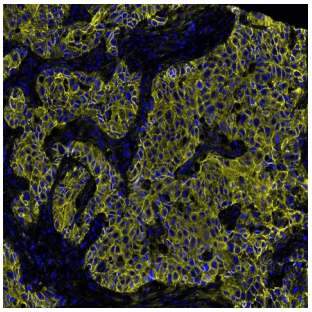
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

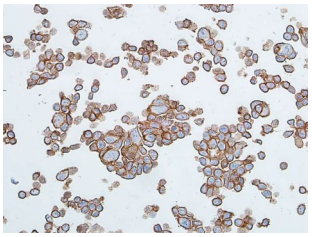
9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063)

E-Cadherin/CD324 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human lung carcinoma using rabbit Anti-E-Cadherin/CD324 antibody

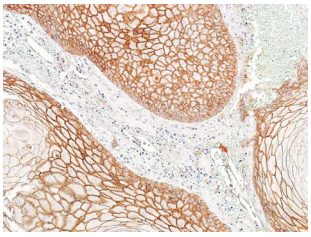
Detection of human E-Cadherin in FFPE lung carcinoma by immunohistochemistry-IF. Antibody: Rabbit anti-E-Cadherin recombinant monoclonal antibody [BLR088G] (A700-088 Lot 1). Secondary: HRP-conjugated goat anti-rabbit IgG (A120-501P). Substrate:Opal™. Counterstain: DAPI.



Immunocytochemistry - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063)

E-Cadherin/CD324 Immunocytochemistry staining of HCT-116 cells using rabbit Anti-E-Cadherin/CD324 antibody

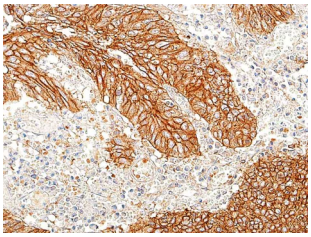
Detection of human E-Cadherin in FFPE HCT-116 cells by ICC Antibody:Rabbit anti-E-Cadherin recombinant monoclonal antibody [BLR088G] (A700-088 lot 1). Secondary:HRP-conjugated goat anti-rabbit IgG (A120-501P). Substrate:DAB.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063)

E-Cadherin/CD324 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human squamous cell carcinoma using rabbit Anti-E-Cadherin/CD324 antibody

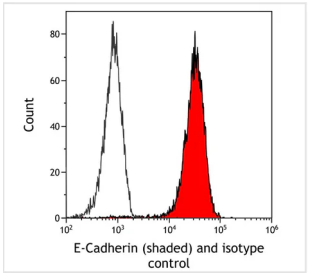
Detection of human E-Cadherin in FFPE squamous cell carcinoma by IHC Antibody:Rabbit anti-E-Cadherin recombinant monoclonal antibody [BLR088G] (A700-088 lot 1). Secondary:HRP-conjugated goat anti-rabbit IgG (A120-501P). Substrate:DAB.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063)

E-Cadherin/CD324 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human lung carcinoma using rabbit Anti-E-Cadherin/CD324 antibody

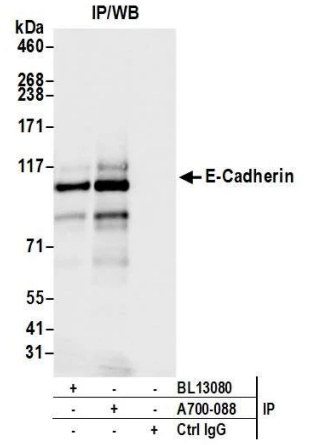
Detection of human E-Cadherin in FFPE lung carcinoma by IHC. Antibody:Rabbit anti-E-Cadherin recombinant monoclonal antibody [BLR088G] (A700-088 lot 1). Secondary:HRP-conjugated goat anti-rabbit IgG (A120-501P). Substrate:DAB.



Flow Cytometry - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063)

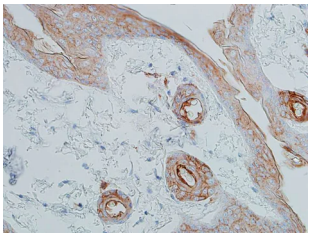
E-Cadherin/CD324 Flow Cytometry staining of HT29 cells using rabbit Anti-E-Cadherin/CD324 antibody

Detection of human E-Cadherin (shaded) in HT29 cells by flow cytometry. Antibody: Rabbit anti-E-Cadherin recombinant monoclonal antibody [BLR088G] or isotype control (unshaded). Secondary: DyLight® 650-conjugated goat anti-rabbit IgG (ab96886).



Immunoprecipitation - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063)

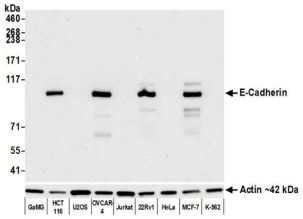
Samples:Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from MCF-7 cells prepared using NETN lysis buffer. Antibodies:Rabbit anti-E-Cadherin recombinant monoclonal antibody [BLR088G] used for IP at 20 µl/mg lysate. E-Cadherin was also immunoprecipitated by rabbit anti-E-Cadherin antibody (BL13080). For blotting immunoprecipitated E-Cadherin, was used at 1:1000. Chemiluminescence with an exposure time of 1 second.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063)

E-Cadherin/CD324 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse skin using rabbit Anti-E-Cadherin/CD324 antibody

Detection of mouse E-Cadherin in FFPE skin by IHC. Antibody:Rabbit anti-E-Cadherin recombinant monoclonal antibody [BLR088G] (A700-088 lot 1). Secondary:HRPconjugated goat anti-rabbit IgG (A120-501P). Substrate: DAB.



Western blot - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063)

E-Cadherin/CD324 Western blot staining using rabbit Anti-E-Cadherin/CD324 antibody

Samples: Whole cell lysate (5 µg) from GaMG, HCT 116, U2OS, OVCAR-4, Jurkat, 22Rv1, HeLa, MCF-7, and K-562 cells prepared using NETN lysis buffer. Antibody:Rabbit anti-ECadherin recombinant monoclonal antibody [BLR088G] (A700-088 lot 1) used at 1:1000. Secondary:HRPconjugated goat anti-rabbit IgG (A120-101P). Chemiluminescence with an exposure time of 10 seconds. Lower Panel: Rabbit anti-Actin recombinant monoclonal antibody [BLR057F] (A700-057).
All lanes:
Western blot - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063) at 1/1000 dilution

Lane 1:
GaMG Whole cell lysate, at 5 µg

Lane 2:
HCT 116 Whole cell lysate, at 5 µg

Lane 3:
U2OS Whole cell lysate at 5 µg

Lane 4:
OVCAR-4 Whole cell lysate at 5 µg

Lane 5:
Jurkat Whole cell lysate at 5 µg

Lane 6:
22Rv1 Whole cell lysate at 5 µg

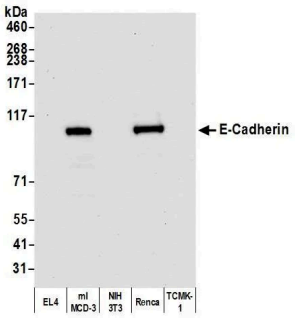
Lane 7:
HeLa Whole cell lysate at 5 µg

Lane 8:
MCF-7 Whole cell lysate at 5 µg

Lane 9:
K-562 Whole cell lysate at 5 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG



Western blot - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063)

E-Cadherin/CD324 Western blot staining using rabbit Anti-E-Cadherin/CD324 antibody

Samples: Whole cell lysate (5 µg) from EL4, mIMCD-3, NIH 3T3, Renca, and TCMK-1 cells prepared using NETN lysis buffer. Antibody:Rabbit anti-E-Cadherin recombinant monoclonal antibody [BLR088G] (A700-088 lot 1) used at 1:1000. Secondary:HRP-conjugated goat anti-rabbit IgG (A120-101P). Chemiluminescence with an exposure time of 10 seconds.
All lanes:
Western blot - Anti-E-Cadherin/CD324 antibody [BLR088G] - BSA free (ab314063) at 1/1000 dilution

Lane 1:
EL4 Whole cell lysate at 5 µg

Lane 2:
mIMCD-3 Whole cell lysate at 5 µg

Lane 3:
NIH 3T3 Whole cell lysate at 5 µg

Lane 4:
Renca Whole cell lysate at 5 µg

Lane 5:
TCMK-1 Whole cell lysate at 5 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.