

Product datasheet

Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] ab76319

RabMAb[®]

★★★★★ 1 Abreviews 12 References 9 Images

Overview

Product name	Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y]
Description	Rabbit monoclonal [EP913(2)Y] to E Cadherin (phospho S838 + S840)
Host species	Rabbit
Specificity	Detects E Cadherin phosphorylated at serine 838 and 840.
Tested applications	Suitable for: WB, IP, IHC-P Unsuitable for: Flow Cyt or ICC
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human E Cadherin. The exact sequence is proprietary.
Positive control	WB: Human brain lysate; IHC-P: Human breast carcinoma or cervical carcinoma tissue.
General notes	

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#)

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number EP913(2)Y

Isotype IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab76319** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500000. Predicted molecular weight: 97 kDa.
IP		1/50.
IHC-P	★★★★★	1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols .

Application notes Is unsuitable for Flow Cyt or ICC.

Target

Function

Cadherins are calcium-dependent cell adhesion proteins. 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. 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.

Tissue specificity

Non-neural epithelial tissues.

Involvement in disease

Defects in CDH1 are the cause of hereditary diffuse gastric cancer (HDGC) [MIM:137215]. An autosomal dominant cancer predisposition syndrome with increased susceptibility to diffuse gastric cancer. Diffuse gastric cancer is a malignant disease characterized by poorly differentiated infiltrating lesions resulting in thickening of the stomach. Malignant tumors start in the stomach, can spread to the esophagus or the small intestine, and can extend through the stomach wall to nearby lymph nodes and organs. It also can metastasize to other parts of the body. Note=Heterozygous germline mutations CDH1 are responsible for familial cases of diffuse gastric cancer. Somatic mutations in the has also been found in patients with sporadic diffuse gastric cancer and lobular breast cancer.
Defects in CDH1 are a cause of susceptibility to endometrial cancer (ENDMC) [MIM:608089].
Defects in CDH1 are a cause of susceptibility to ovarian cancer (OC) [MIM:167000]. Ovarian cancer common malignancy originating from ovarian tissue. Although many histologic types of ovarian neoplasms have been described, epithelial ovarian carcinoma is the most common form. Ovarian cancers are often asymptomatic and the recognized signs and symptoms, even of late-stage disease, are vague. Consequently, most patients are diagnosed with advanced disease.

Sequence similarities

Contains 5 cadherin domains.

Post-translational modifications

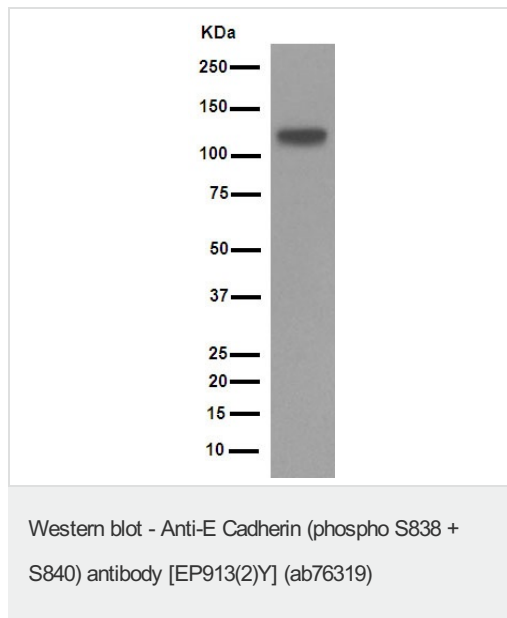
During apoptosis or with calcium influx, cleaved by a membrane-bound metalloproteinase (ADAM10), PS1/gamma-secretase and caspase-3 to produce fragments of about 38 kDa (E-

CAD/CTF1), 33 kDa (E-CAD/CTF2) and 29 kDa (E-CAD/CTF3), respectively. Processing by the metalloproteinase, induced by calcium influx, causes disruption of cell-cell adhesion and the subsequent release of beta-catenin into the cytoplasm. The residual membrane-tethered cleavage product is rapidly degraded via an intracellular proteolytic pathway. Cleavage by caspase-3 releases the cytoplasmic tail resulting in disintegration of the actin microfilament system. The gamma-secretase-mediated cleavage promotes disassembly of adherens junctions.

Cellular localization

Cell junction. Cell membrane. Endosome. Golgi apparatus > trans-Golgi network. Colocalizes with DLGAP5 at sites of cell-cell contact in intestinal epithelial cells. Anchored to actin microfilaments through association with alpha-, beta- and gamma-catenin. Sequential proteolysis induced by apoptosis or calcium influx, results in translocation from sites of cell-cell contact to the cytoplasm. Colocalizes with RAB11A endosomes during its transport from the Golgi apparatus to the plasma membrane.

Images



Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319) at 1/500000 dilution (purified) + Mouse brain at 10 µg

Secondary

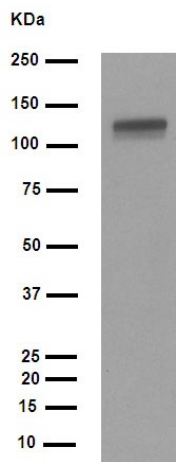
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 97 kDa

Observed band size: 145 kDa

Blocking buffer: 5% NFDm/TBST

Dilution buffer: 5% NFDm/TBST



Western blot - Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319)

Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319) at 1/500000 dilution (purified) + Rat brain at 10 µg

Secondary

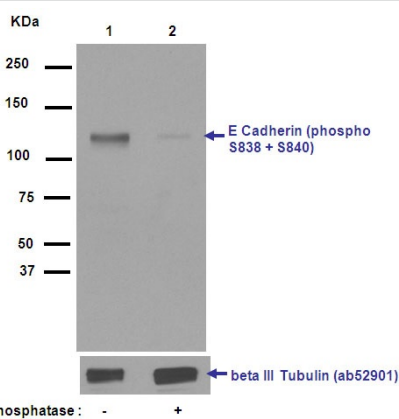
HRP goat anti-rabbit (H+L) at 1/1000 dilution

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Blocking buffer: 5% NFDm/TBST

Dilution buffer: 5% NFDm/TBST



Western blot - Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319)

All lanes : Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319) at 1/500000 dilution (purified)

Lane 1 : Untreated human fetal brain

Lane 2 : Human fetal brain treated with alkaline phosphatase

Lysates/proteins at 10 µg per lane.

Secondary

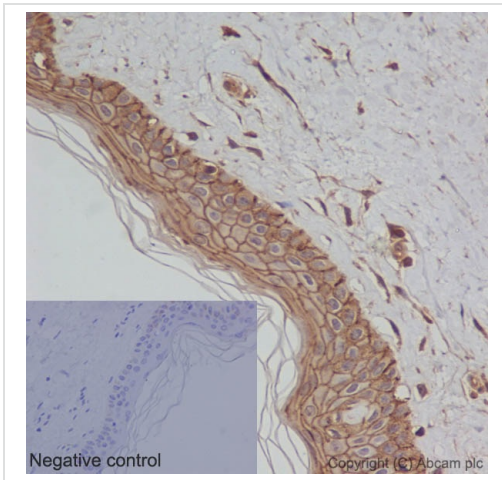
All lanes : HRP anti-rabbit IgG, specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 97 kDa

Observed band size: 145 kDa

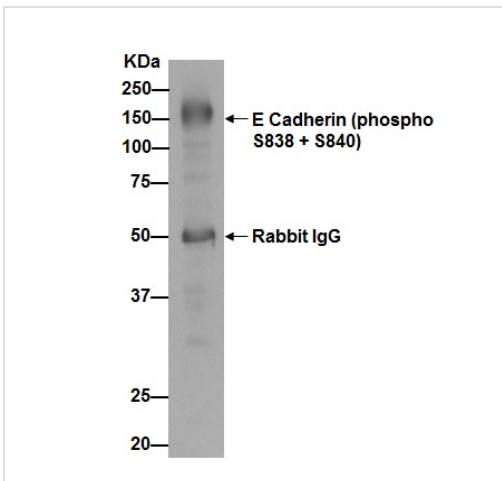
Blocking buffer: 5% NFDm/TBST

Dilution buffer: 5% NFDm/TBST



Immunohistochemical staining of paraffin embedded human skin with purified ab76319 at a working dilution of 1 in 100. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319)

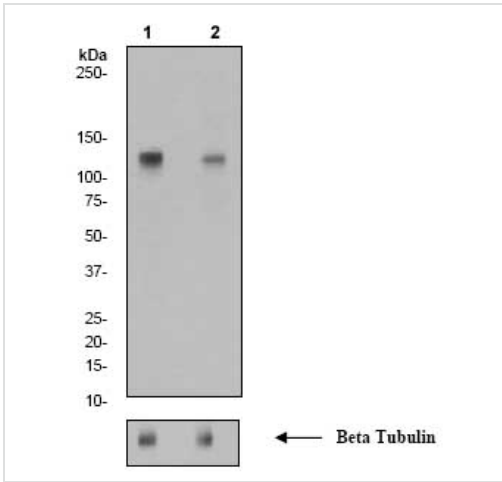


ab76319 (purified) at 1/50 immunoprecipitating E cadherin in human fetal brain (Lane 1). For western blotting, a HRP-conjugated anti-rabbit IgG was used as the secondary antibody (1/1000).

Blocking buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm /TBST.

Immunoprecipitation - Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319)



Western blot - Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319)

All lanes : Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319) at 1/1000000 dilution (unpurified)

Lane 1 : Human brain lysate, untreated

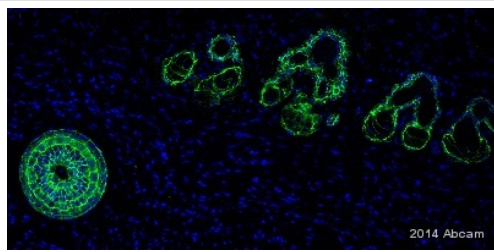
Lane 2 : Human brain lysate treated with AP

Lysates/proteins at 10 µg per lane.

Secondary

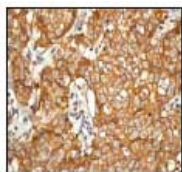
All lanes : Goat anti-rabbit HRP at 1/1000 dilution

Predicted band size: 97 kDa



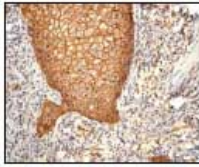
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319)
This image is courtesy of an anonymous Abreview

Unpurified ab76319 staining E Cadherin in mouse skin (pilosebaceous units) tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde, permeabilized with Tween-20 and blocked with 10% normal donkey serum + 1% serum for 40 minutes at room temperature; antigen retrieval was by heat mediation in a citrate buffer, pH 6. Samples were incubated with primary antibody (1/400 in 1% BSA) for 16 hours at 4°C. An Alexa Fluor® 488-conjugated donkey anti-rabbit IgG polyclonal (1/400) was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319)

Immunohistochemical analysis of paraffin-embedded human breast carcinoma using unpurified ab76319 at 1/100 dilution.



Immunohistochemical analysis of paraffin-embedded human cervical carcinoma using unpurified ab76319 at 1/100 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E Cadherin (phospho S838 + S840) antibody [EP913(2)Y] (ab76319)

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