

Product datasheet

Anti-CTNNA1 antibody [EP1793Y] - Low endotoxin, Azide free ab226010

KO VALIDATED Recombinant RabMAB

[11 References](#) [7 Images](#)

Overview

Product name	Anti-CTNNA1 antibody [EP1793Y] - Low endotoxin, Azide free
Description	Rabbit monoclonal [EP1793Y] to CTNNA1 - Low endotoxin, Azide free
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, IP Unsuitable for: Flow Cyt or ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse heart and kidney lysate. Rat brain and kidney lysate. HeLa, A431 and HUVEC whole cell lysate. IHC-P: Rat and human stomach tissue and mouse liver tissue IP: HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate
General notes	<p>ab226010 is the carrier-free version of ab51032.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p> <p>Our Low endotoxin, azide-free formats have low endotoxin level (≤ 1 EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1793Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab226010 in the following tested applications.

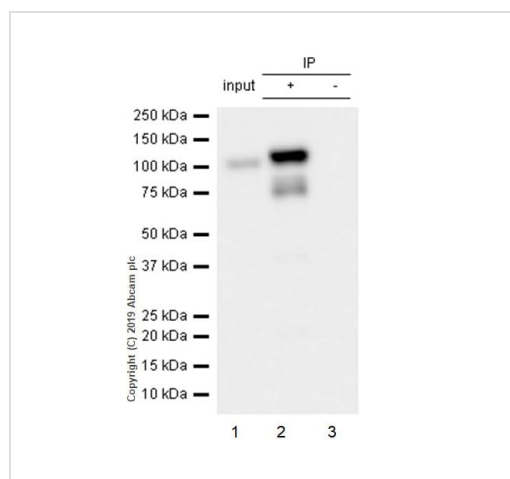
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Detects a band of approximately 100 kDa (predicted molecular weight: 100 kDa).
IP		Use at an assay dependent concentration.

Application notes Is unsuitable for Flow Cyt or ICC/IF.

Target

Function	Associates with the cytoplasmic domain of a variety of cadherins. The association of catenins to cadherins produces a complex which is linked to the actin filament network, and which seems to be of primary importance for cadherins cell-adhesion properties. Can associate with both E- and N-cadherins. Originally believed to be a stable component of E-cadherin/catenin adhesion complexes and to mediate the linkage of cadherins to the actin cytoskeleton at adherens junctions. In contrast, cortical actin was found to be much more dynamic than E-cadherin/catenin complexes and CTNNA1 was shown not to bind to F-actin when assembled in the complex suggesting a different linkage between actin and adherens junctions components. The homodimeric form may regulate actin filament assembly and inhibit actin branching by competing with the Arp2/3 complex for binding to actin filaments. May play a crucial role in cell differentiation.
Tissue specificity	Expressed ubiquitously in normal tissues.
Sequence similarities	Belongs to the vinculin/alpha-catenin family.
Post-translational modifications	Sumoylated.
Cellular localization	Cell membrane and Cytoplasm > cytoskeleton. Cell junction > adherens junction. Cell membrane. Cell junction. Found at cell-cell boundaries and probably at cell-matrix boundaries.



Immunoprecipitation - Anti-CTNNA1 antibody
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ab190685 at 1/100 dilution immunoprecipitating CTNNA1 in Jurkat HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 1 (input): HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg

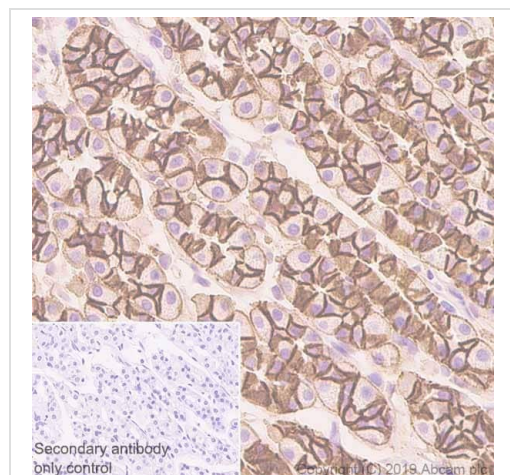
Lane 2 (+): HeLa whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab51032** in HeLa whole cell lysate

For western blotting, **ab51032** at 1/500 dilution and VeriBlot for IP Detection Reagent (HRP)(**ab131366**) at 1/1000 dilution were used.

Blocking and diluting buffer: 5% NFDM /TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab51032**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CTNNA1 antibody
[EP1793Y] - Low endotoxin, Azide free (ab226010)

Paraffin-embedded rat stomach tissue stained for CTNNA1 with **ab51032** at a 1/100 dilution in immunohistochemical analysis.

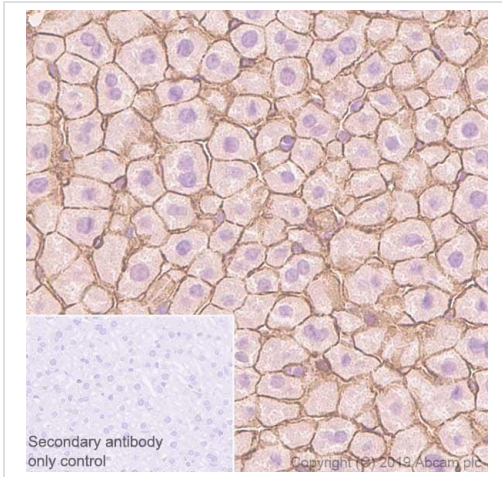
Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as a secondary antibody and Hematoxylin used as a counterstain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) was performed for 20 minutes.

Positive staining was seen on rat stomach.

The section was incubated with **ab51032** for 30 minutes at room temperature.

The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab51032**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CTNNA1 antibody [EP1793Y] - Low endotoxin, Azide free (ab226010)

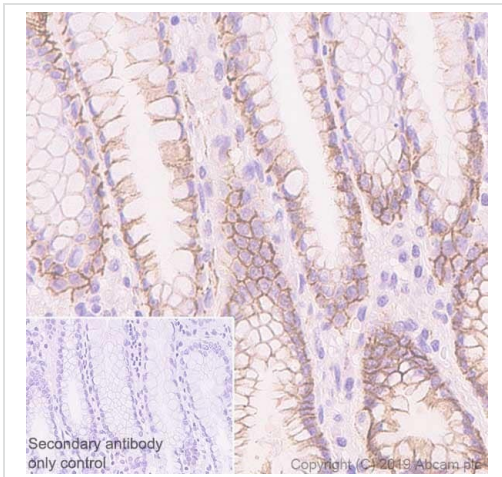
Paraffin-embedded mouse liver tissue stained for CTNNA1 with **ab51032** at a 1/100 dilution in immunohistochemical analysis. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as a secondary antibody and Hematoxylin used as a counterstain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) was performed for 20 minutes.

Positive staining was seen on mouse liver.

The section was incubated with **ab51032** for 30 minutes at room temperature.

The immunostaining staining was performed on a Leica Biosystems BOND[®] RX instrument.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab51032**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CTNNA1 antibody [EP1793Y] - Low endotoxin, Azide free (ab226010)

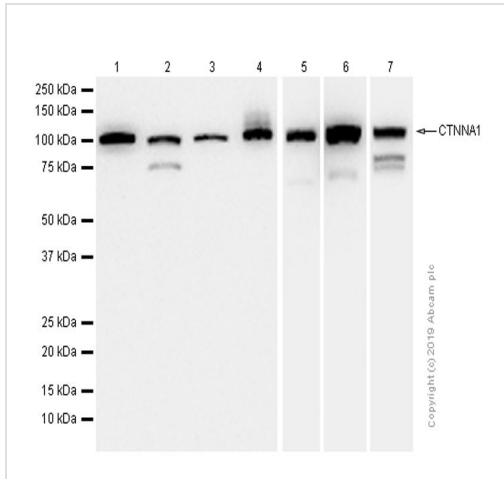
Paraffin-embedded human stomach tissue stained for CTNNA1 with **ab51032** at a 1/100 dilution in immunohistochemical analysis. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as a secondary antibody and Hematoxylin used as a counterstain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) was performed for 20 minutes.

Positive staining was seen on human stomach.

The section was incubated with **ab51032** for 30 minutes at room temperature.

The immunostaining staining was performed on a Leica Biosystems BOND[®] RX instrument.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab51032**).



Western blot - Anti-CTNNA1 antibody [EP1793Y] -
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All lanes : Anti-CTNNA1 antibody [EP1793Y] (**ab51032**) at
1/10000 dilution

Lane 1 : Mouse heart lysate

Lane 2 : Mouse kidney lysate

Lane 3 : Rat brain lysate

Lane 4 : Rat kidney lysate

Lane 5 : HeLa (Human cervix adenocarcinoma epithelial cell)
whole cell lysate

Lane 6 : A431 (Human epidermoid carcinoma epithelial cell) whole
cell lysate

Lane 7 : HUVEC (Human umbilical vein endothelial cell) whole cell
lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000
dilution

Predicted band size: 100 kDa

Observed band size: 100 kDa

Exposure times

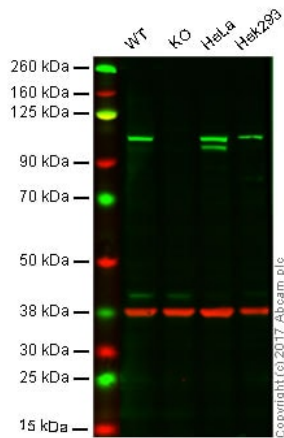
Lane 1-4: 180 seconds

Lane 5,7: 40 seconds

Lane 6: 5 seconds

Blocking/diluting buffer and concentration: 5% NFDm/TBST

This data was developed using the same antibody clone in a
different buffer formulation containing PBS, BSA, glycerol, and
sodium azide (**ab51032**).



Western blot - Anti-CTNNA1 antibody [EP1793Y] - Low endotoxin, Azide free (ab226010)

This WB data was generated using the same anti-CTNNA1 antibody clone [EP1793Y] in a different buffer formulation (cat# **ab51032**).

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

Lane 2: CTNNA1 HAP1 whole cell lysate (20 µg)


Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: HEK293 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - **ab51032** observed at 100 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab51032 was shown to recognize CTNNA1 in wild-type cells as signal was lost at the expected MW in CTNNA1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and CTNNA1 knockout samples were subjected to SDS-PAGE. Ab51032 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/50000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

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