Datasheet for ABIN1043907

anti-beta Catenin antibody (C-Term)

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Overview

Quantity:	25 µL
Target:	beta Catenin (CATNB)
Binding Specificity:	C-Term
Reactivity:	Human, Mouse, Rat, Cow, Zebrafish (Danio rerio), Xenopus laevis
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This beta Catenin antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	beta catenin antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to catenin beta-1 C-terminus. Immunogen Type: Peptide
Isotype:	IgG
Specificity:	Beta catenin antibody is directed against catenin beta-1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross-reactivity with catenin beta-1 protein from human, mouse, rat, bovine, Xenopus laevis, and Danio rerio at 100% based on homology with the immunizing sequence. Reactivity against homologues from other sources is not known.
Characteristics:	Beta-catenin 1 (or ß-catenin 1) is a protein that is encoded by the CTNNB1 gene. ß-catenin 1 is a subunit of the cadherin protein complex and has been implicated as an integral component in

Product Details

	the Wnt signaling pathway. This pathway plays a key role in the regulation of cellular processes involved in development, differentiation, and adult tissue homeostasis. In the presence of Wnt ligand, ß-catenin 1 is not ubiquitinated and accumulates in the nucleus, where it associates with T-cell factor (TCF) family members to regulate target gene expression in many developmental and adult tissues. Recruitment of b-catenin 1 to Wnt response element (WRE) chromatin converts TCFs from transcriptional repressors to activators. ß-catenin 1 is also involved in the regulation of cell adhesion. It acts as a negative regulator of centrosome cohesion. Aberrant Wnt/ß-catenin signaling is widely implicated in cancer, bone disorders, kidney and intestinal cell disorders and other disease states. ß-catenin 1 is located in the cytoplasm when it is unstabilized or bound to CDH1. Interaction with GLIS2 and MUC1 promotes nuclear translocation. Interaction with EMD inhibits nuclear localization. The majority of ß-catenin 1 is localized to the cell membrane. In interphase, colocalizes with CROCC between CEP250 puncta at the proximal end of centrioles, and this localization is dependent on CROCC and CEP250. In mitosis, when NEK2 activity increases, it localizes to centrosomes at spindle poles independent of CROCC. It further co-localizes with CDK5 in the cell-cell contacts and plasma membrane of undifferentiated and differentiated neuroblastoma cells.
Sterility:	Sterile filtered

Target Details

Target:	beta Catenin (CATNB)
Alternative Name:	beta Catenin (CATNB Products)
Background:	Beta-catenin 1 (or ß-catenin 1) is a protein that is encoded by the CTNNB1 gene. ß-catenin 1 is a subunit of the cadherin protein complex and has been implicated as an integral component in the Wnt signaling pathway. This pathway plays a key role in the regulation of cellular processes involved in development, differentiation, and adult tissue homeostasis. In the presence of Wnt ligand, ß-catenin 1 is not ubiquitinated and accumulates in the nucleus, where it associates with T-cell factor (TCF) family members to regulate target gene expression in many developmental and adult tissues. Recruitment of b-catenin 1 to Wnt response element (WRE) chromatin converts TCFs from transcriptional repressors to activators. ß-catenin 1 is also involved in the regulation of cell adhesion. It acts as a negative regulator of centrosome cohesion. Aberrant Wnt/ß-catenin signaling is widely implicated in cancer, bone disorders, kidney and intestinal cell disorders and other disease states. ß-catenin 1 is located in the cytoplasm when it is unstabilized or bound to CDH1. Interaction with GLIS2 and MUC1 promotes nuclear translocation. Interaction with EMD inhibits nuclear localization. The majority of ß-catenin 1 is

Target Details

	localized to the cell membrane. In interphase, colocalizes with CROCC between CEP250 puncta at the proximal end of centrioles, and this localization is dependent on CROCC and CEP250. In mitosis, when NEK2 activity increases, it localizes to centrosomes at spindle poles independent of CROCC. It further co-localizes with CDK5 in the cell-cell contacts and plasma membrane of undifferentiated and differentiated neuroblastoma cells. Synonyms: Catenin beta-1, beta catenin, ß-catenin-1, ß-catenin, CTNNB1, CTNNB, beta catenin antibody, anti-beta catenin
NCBI Accession:	NP_001091679
UniProt:	Q9WU82
Pathways:	Peptide Hormone Metabolism

Application Details

Application Notes:	beta catenin antibody has been tested for use in ELISA, western blotting, and ISH. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 85.5 kDa in size corresponding to catenin beta-1 protein by western blotting in the appropriate cell lysate or extract.
Comment:	Gene Name: ctnnb1
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.15 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	Store vial at 4 °C prior to restoration. For extended storage aliquot contents and freeze at -20 °C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4 °C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening.

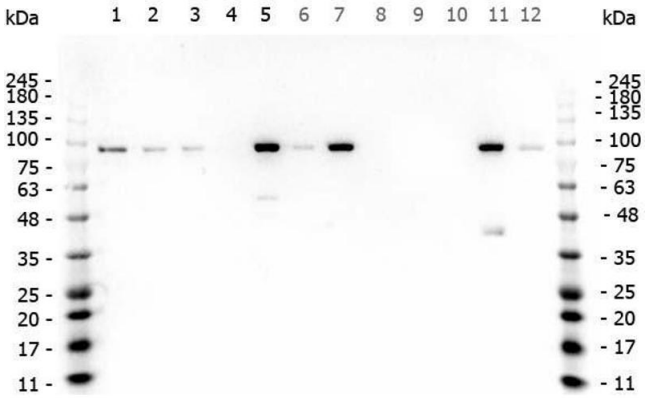
Handling

Expiry Date:	12 months

Publications

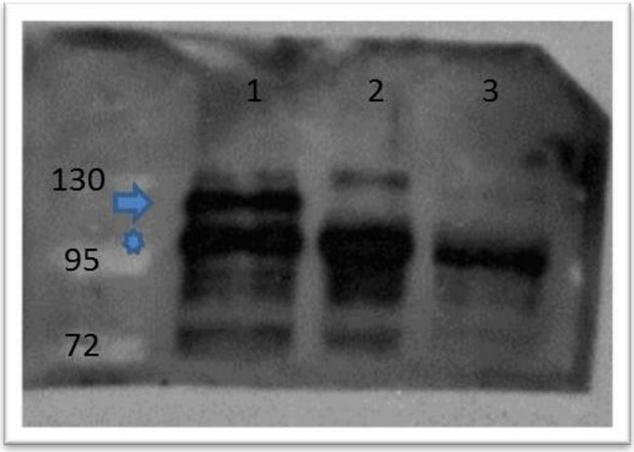
Product cited in:	Baek, Eling: "Changes in gene expression contribute to cancer prevention by COX inhibitors." in: **Progress in lipid research**, Vol. 45, Issue 1, pp. 1-16, (2006) (PubMed).

Images



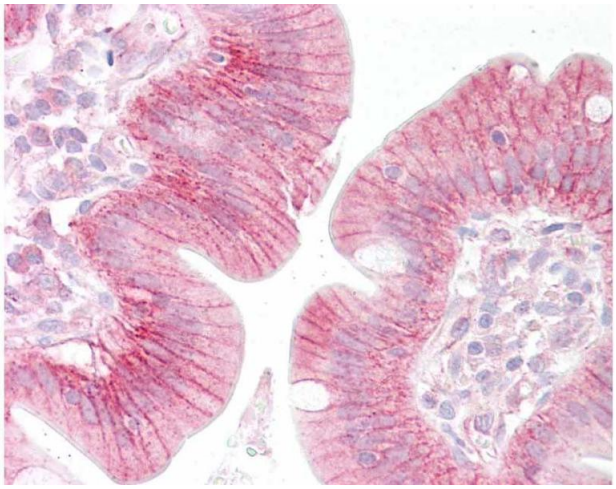
Western Blotting

Image 1. Western Blot of Rabbit anti-Beta Catenin antibody. Marker: Opal Pre-stained ladder . Lane 1: HEK293 lysate . Lane 2: HeLa Lysate . Lane 3: MCF-7 Lysate . Lane 4: Jurkat Lysate . Lane 5: A431 Lysate . Lane 6: A549 Lysate . Lane 7: LNCap Lysate . Lane 8: MOLT-4 Lysate . Lane 9: Ramos Lysate . Lane 10: Raji Lsyate . Lane 11: A-172 Lysate . Lane 12: NIH/3T3 Lysate . Load: 35 µg per lane. Primary antibody: Beta catenin antibody at 1:1,000 for overnight at 4C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 85 kDa for Beta Catenin.



Western Blotting

Image 2. Western Blot of Rabbit anti-catenin ß-1 antibody Lane 1: zebrafish embryos injected with myc tagged catenin ß 1 mRNA Lane 2: zebrafish embryos injected with myc tagged catenin ß 2 mRNA Lane 3: zebrafish embryos un-injected Primary antibody: catenin ß-1 antibody at 1:500 overnight at 4°C Secondary antibody: goat anti-rabbit HRP at 1:10,000 for 1 hour at RT Predicted/Observed size: 85.5kDa/ ~125kDa (arrow) endogenous catenin ß-1 Other band(s): ~110kDa (star) co-migrating catenin ß-1 and ß-2.



Immunohistochemistry

Image 3. Immunohistochemistry of Rabbit anti-beta Catenin antibody. Tissue: human small intestine epithelium. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: beta Catenin antibody at 5-10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase goat anti-rabbit at 1:10,000 for 45 min at RT. Localization: Strong membranous staining in a variety of epithelial tissues. Staining: antibody as precipitated red signal with a hematoxylin purple nuclear counterstain.

Validation report #029816 for Western Blotting (WB)

Successfully validated (Western Blotting (WB))

by ADS Biosystems Inc

Report Number: 029816

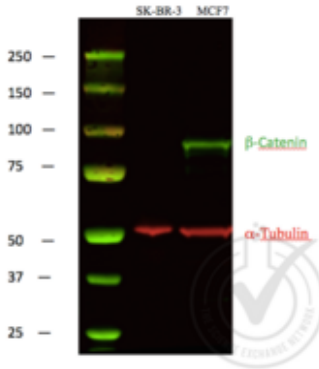
Date: Sep 18 2014

Lot Number:	27397
Method validated:	Western Blotting (WB)
Positive Control:	MCF-7 cells
Negative Control:	SK-BR-3 cells
Notes:	A strong specific band was observed in the positive control at the expected size (~85.5 kDa) that is not observed in the negative control.
Primary Antibody:	- Antigen: Beta Catenin - Catalog number: ABIN1043907 - Supplier: antibodies-online - Lot number: 27397 - Dilution: 1:1,000
Secondary Antibody:	- Antibody: IRDye 680LT Goat Anti-Rabbit - Catalogue number: 827-11081 - Supplier: LI-COR Biosciences - Lot number: C30725-01 - Dilution: 1:10,000
Controls:	• MCF-7 lysates were prepared by ADS Biosystems following standard protocols and quality controlled for protein integrity on a regular basis • SK-BR-3 lysates were purchased from Santa Cruz Biotechnology (catalog number sc-2218)
Protocol:	• Lysates were mixed with NuPAGE® LDS Sample Buffer (Life Technologies NP0007) and NuPAGE® Sample Reducing Agent (Life Technologies NP0004) and denatured for 5 minutes at 90ºC. • 40 µg of each lysate was electrophoresed on a Bolt 4-12% Bis-Tris Gel (Life Technologies BG04120BOX) and run in Bolt MOPS SDS Running Buffer (Life Technologies B0001) at 160 volts for 1 hour. • Odyssey Western Protein Standard (LI-COR #928-40000) was run as a molecular weight standard. • PVDF membrane was activated with methanol. • Protein samples were transferred to activated PVDF membrane in a wet Bolt Transfer Apparatus (Life Technologies B1000) at room temperature for 1 hour at 20 volts (started at 230mA, ended at 110mA). • The membrane was blocked in x LI-COR Odyssey WB block solution for 1 hour at room temperature. • The membrane was incubated with the primary antibody diluted 1:1000 in x LI-COR Odyssey WB block solution incubated 2 hours at room temperature.

- The membrane was washed 4 x 5 minutes in 1 x PBS-T (PBS solution with 0.1% Tween 20).
- The membrane was incubated with IRDye® 800CW Goat anti-Mouse Secondary Antibody (Red) and IRDye 680LT Goat Anti-Rabbit Secondary Antibody (Green) from LI-COR (#827-11081, Lot #C30725-01), both 1:10,000 dilutions. Incubation was performed at room temperature for 45 minutes.
- The membrane was washed 4 x 5 minutes in 1 x PBS-T (PBS solution with 0.1% Tween 20).
- Proteins were detected using Odyssey machine scanning with green channel for loading control and red channel for potential LPL band.

Experimental Notes:	- No experimental challenges noted.

Image for Validation report #029816



Validation image no. 1 for anti-Catenin, beta (CATNB) (C-Term) antibody (ABIN1043907)

Figure 1: Scanned image of Beta Catenin (Green) and loading control alpha-tubulin (Red) Western blot using LI-COR Odyssey Infrared Technology. First lane, protein molecular weight markers. Second lane, SK-BR-3 negative control lysate. Third lane, MCF-7 positive control lysate.