

Anti-beta-Catenin

Polyclonal Antibody

Cat. # AB19022

Lot # JC1641495

pack size: 50 µL

Store at -20°C

FOR RESEARCH USE ONLY
NOT FOR USE IN HUMANS



Certificate of Analysis

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Applications	Species Cross-Reactivity	Antibody Isotype	Epitope/Region	Host Species	Molecular Weight	Accession #
WB, ELISA, IC, IH(P), IP	Ca, H, M, R	N/A	N/A	Rb	94 kDa	NM_001098209.1

Background

Catenins are cytosolic proteins found in varying abundance in many developing and adult tissues. Plakoglobin and beta-catenin (95 kDa) are homologous proteins and can substitute for one another in the cadherin/catenin complex. Their activities are controlled by three types of interactions: those with cadherins in adherens junctions, linking them to the actin cytoskeleton; interactions in the nucleus, where they bind to transcription factors and stimulate gene expression; interactions of free cytoplasmic beta-catenin with axin and adenomatous polyposis coli (APC) protein which target it for degradation. Studies in the past year have demonstrated the complex interplay between these three types of interactions and the different behavior of beta-catenin and plakoglobin. Their involvement in morphogenesis and tumorigenesis strongly suggests that catenins play key roles in adhesion-mediated signaling.

Presentation

Liquid containing no preservatives.

Specificity

Beta-catenin protein, antibody also cross reacts with mouse and dog. Beta-catenin is highly conserved between mammals and sequence comparisons show 98% similarity in pig and rat species as well

Immunogen

Recombinant GST-fusion protein (full length human beta-catenin)

Storage and Handling

Stable for 1 year at -20°C, maintain frozen, in undiluted aliquots from date of receipt.

Handling Recommendations: Upon receipt, and prior to removing the cap, centrifuge the vial and gently mix the solution. Aliquot into microcentrifuge tubes and store at -20°C. Avoid repeated freeze/thaw cycles, which may damage IgG and affect product performance.

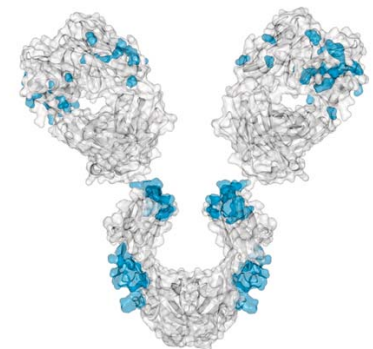
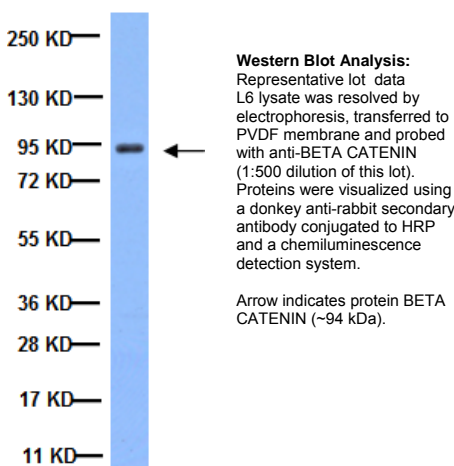
Control

MDBK cells, human lung tumour lysate

Quality Control Testing

Routinely evaluated by Western Blot on L6 lysates.

Western blot Analysis: 1:500 dilution of this lot detected BETA CATENIN on 10 µg of L6 lysates.



References

1. Mikaelian, I., et al. (2004). *Toxicology Pathology* 32: 181-191.
2. Vorbrodt, AW, Dobrogowska, D. (2003). *Brain Res Brain Res Rev* 42(3): 221-242.
3. Ligon, Lee, et al. (2001). *Nature Cell Biol* 3(10): 913-917.
4. Ben-Ze'ev, A, et al. (1998). *Curr. Opin. Cell Biol.* 10(5): 629-639.
5. Dillon, D, et al. (1998). *American Journal of Pathology* 152(1): 75-81.

Additional Research Applications

Immunocytochemistry: A previous lot of this antibody was used in immunocytochemistry.

Immunoprecipitation: A previous lot of this antibody was used in immunoprecipitation.

APPLICATION LEGEND: WB Western Blotting ELISA Enzyme-linked Immunosorbent Assay IP Immunoprecipitation
IC Immunocytochemistry IF Immunofluorescence IH(P) Immunohistochemistry (Paraffin) IH Immunohistochemistry (Tissue)

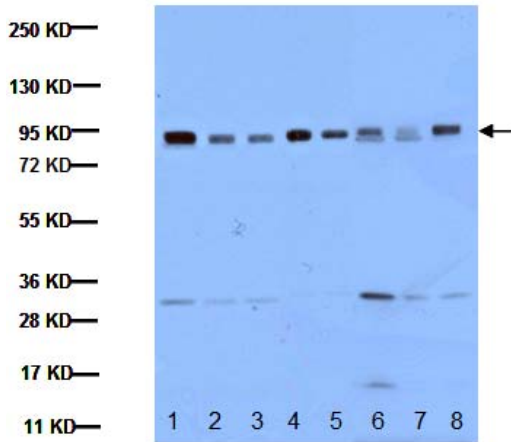
SPECIES LEGEND: Ca Canine (Dog) H Human M Mouse R Rat Rb Rabbit WR Most Common Vertebrates

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Additional Research Applications

**Western Blot Analysis:**

Representative lot data.

A431 (Lane 1), C2C12 lysate (Lane 2), HEK293 lysate (Lane 3), Huvec lysate (Lane 4), L6 lysate (Lane 5), NIH/3T3 lysate (Lane 6), PC12 lysate (Lane 7), PC3 lysate (Lane 8) were resolved by electrophoresis, transferred to PVDF membrane and probed with anti-BETA CATENIN (1:500 dilution of this lot).

Proteins were visualized using a donkey anti-rabbit secondary antibody conjugated to HRP and a chemiluminescence detection system.

Arrow indicates protein BETA CATENIN (~94 kDa).

Immunohistochemistry(paraffin): A 1:250-1:500 dilution from a previous lot was used on formalin-fixed paraffin-embedded tissues*.

*Requires pressure cooker antigen retrieval method. Sections are baked overnight at 60°C, and then deparaffinized and treated for antigen retrieval by immersion in 6.6mM sodium citrate pH 6.0 for 5 minutes in a conventional pressure cooker. Sections were then blocked with 0.3% bovine serum albumin in Tris-buffered saline pH 8.0. Incubations are usually overnight, before washing 7 times with TBS plus 0.01% triton X-100 in the sixth wash.

ELISA: A previous lot of this antibody was used in ELISA.

Optimal working dilutions must be determined by end user.

Protocol

Western Blotting

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on cell lysate and transfer the proteins to a PVDF membrane. Wash the PVDF membrane twice with water.
2. Block the blotted PVDF membrane in freshly prepared 5% BSA with 0.05% Tween®-20 for 1 hour at room temperature with constant agitation.
3. Incubate the PVDF with the recommended dilution of **Anti-beta-Catenin** diluted in freshly prepared 5% BSA for 1 hour at room temperature or overnight with agitation at 2-8°C.
4. Wash the PVDF 3 times with TBST.
5. Incubate the PVDF in the secondary reagent of choice (a goat anti-rabbit HRP conjugated IgG, Catalog # 12-348 1:1000 dilution was used) in 5% milk for 1 hour with agitation at room temperature.
6. Wash the PVDF 3-5 times with TBST.
7. Use Spray and Glow Catalog # 17-373 to visualize results. Use as directed.

RELATED PRODUCTS (specific)

cat #	description
05-601	Anti-β-Catenin (non-phospho), clone 8E4
05-613	Anti-β-Catenin, clone 2H4A7
05-665	Anti-Active-β-Catenin (anti-ABC), clone 8E7
06-734	Anti-β-Catenin
MAB2081	Anti-beta-Catenin, clone 5H10
MAB3790	Anti-beta-Catenin, clone 9F12.2
12-537	β-Catenin, GST
M-003482	β-Catenin SMARTpool® siRNA reagent
60-014	β-Catenin siRNA/siAb™ Assay Kit
AP132P	Goat anti-Rabbit IgG, Peroxidase Conjugated

RELATED PRODUCTS (non-specific)

cat #	description
IPVH00010	Immobilon-P 26.5 cm x 3.75 m Roll PVDF 0.45 μm
IPFL00010	Immobilon-FL 26.5 cm x 3.75 m Roll PVDF 0.45 μm
IPVH07850	Immobilon-P 7 x 8.4 cm PVDF 0.45 mm (sheet) 50/pk
ISEQ00010	Immobilon-P SQ 26.5 cm x 3.75 m 1 roll PVDF 0.2 μm
ISEQ07850	Immobilon-P 7 x 8.4 cm PVDF 0.2 mm (sheet) 50/pk
IPFL07810	Immobilon-FL 7 x 8.4 cm PVDF 0.45 mm (sheet) 10/pk
WBKLS0100	Immobilon Western Chemilum HRP Substrate 100 mL
17-373	Spray & Glow™ ECL WB Detection System 1 ea
2060	Re-Blot Western Blot Recycling Kit
2500	Re-Blot Plus Western Blot Recycling Kit
B2080-175GM	Blot Quick Blocker Membrane Blocking Agent 175G

antibodies Multiplex products biotools cell culture enzymes kits proteins/peptides siRNA/cDNA products

Please visit www.millipore.com for additional product information, test data and references

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