

Anti-Delta-catenin Antibody [JE75-34]

HA722438



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IP, IHC-Fr
Molecular Wt:	Predicted band size: 135 kDa
Clone number:	JE75-34

Description: δ -Catenin is a subfamily of catenin proteins with ten armadillo-repeats and includes the proteins catenin delta-1 and catenin delta-2. Catenin delta-2 is expressed in the brain where it is important for normal cognitive development. Like β -catenin and γ -catenin, δ -catenins seem to interact with presenilins. These catenin-presenilin interaction have implications for cadherin function and regulation of cell-to-cell adhesion. While β -catenin acts as a transcription regulatory protein in the Wnt/TCF pathway, delta-1 catenin has been implicated as a regulator of the NF- κ B transcription factor. Palmitoylation of δ -catenin seems to coordinate activity-dependent changes in synaptic adhesion molecules, synapse structure, and receptor localizations that are involved in memory formation.

Immunogen: Recombinant protein within Mouse Catenin delta-2 aa 1-100 / 1,247.

Positive control: Mouse brain tissue lysate, mouse hippocampus tissue lysate, mouse cerebellum tissue lysate, rat brain tissue lysate, rat hippocampus tissue lysate, rat cerebellum tissue lysate, human brain tissue, mouse brain tissue, rat brain tissue.

Subcellular location: Nucleus, Cell junction, adherens junction, Cell projection, dendrite, Perikaryon.

Database links: SwissProt: Q9UQB3 Human | O35927 Mouse | O35116 Rat

Recommended Dilutions:

WB	1:1,000
IHC-P	1:200
IP	1-2 μ g/sample
IHC-Fr	1:200

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4 $^{\circ}$ C after thawing. Aliquot store at -20 $^{\circ}$ C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

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Orders:0086-571-88062880

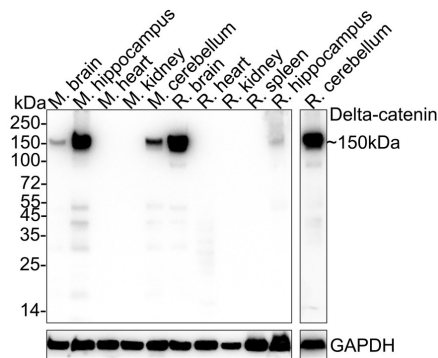
Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

Fig1: Western blot analysis of Delta-catenin on different lysates with Rabbit anti-Delta-catenin antibody (HA722438) at 1/1,000 dilution.



Lane 1: Mouse brain tissue lysate
 Lane 2: Mouse hippocampus tissue lysate
 Lane 3: Mouse heart tissue lysate (negative)
 Lane 4: Mouse kidney tissue lysate (negative)
 Lane 5: Mouse cerebellum tissue lysate
 Lane 6: Rat brain tissue lysate
 Lane 7: Rat heart tissue lysate (negative)
 Lane 8: Rat kidney tissue lysate (negative)
 Lane 9: Rat spleen tissue lysate (negative)
 Lane 10: Rat hippocampus tissue lysate
 Lane 11: Rat cerebellum tissue lysate

Lysates/proteins at 40 µg/Lane.

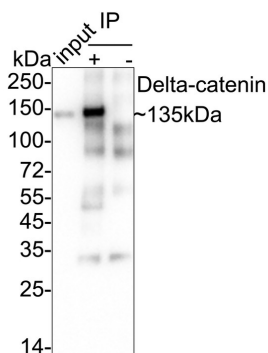
Predicted band size: 135 kDa
 Observed band size: 135 kDa

Exposure time: 1 minute 2 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722438) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Delta-catenin was immunoprecipitated from 0.2 mg mouse brain tissue lysate with HA722438 at 2 µg/25 µl agarose. Western blot was performed from the immunoprecipitate using HA722438 at 1/1,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.



Lane 1: Mouse brain tissue lysate (input)
 Lane 2: HA722438 IP in mouse brain tissue lysate
 Lane 3: Rabbit IgG instead of HA722438 in mouse brain tissue lysate

Blocking/Dilution buffer: 5% NFDM/TBST
 Exposure time: 17 seconds; ECL: K1801

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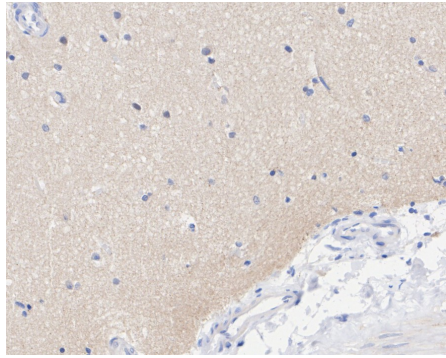


Fig3: Immunohistochemical analysis of paraffin-embedded human brain tissue with Rabbit anti-Delta-catenin antibody (HA722438) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA722438) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

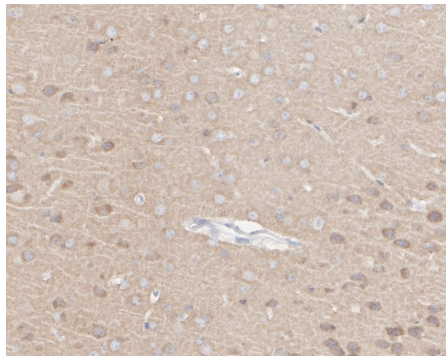


Fig4: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-Delta-catenin antibody (HA722438) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA722438) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

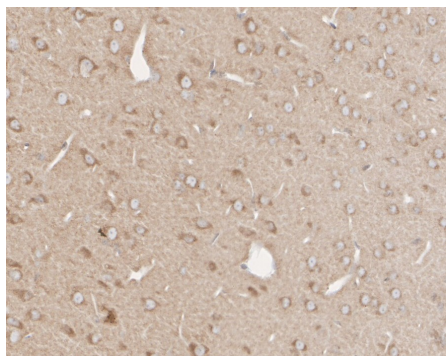


Fig5: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-Delta-catenin antibody (HA722438) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA722438) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

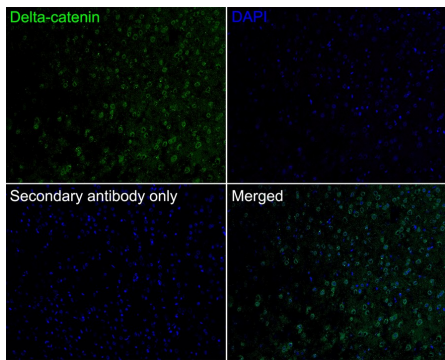


Fig6: Immunofluorescence analysis of frozen rat brain tissue with Rabbit anti-Delta-catenin antibody (HA722438) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA722438, green) at 1/200 dilution overnight at 4 °C, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

Note: All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

Background References

1. Zang X et al. Circular RNA EIF4G3 suppresses gastric cancer progression through inhibition of beta-catenin by promoting delta-catenin ubiquitin degradation and upregulating SIK1. *Mol Cancer*. 2022 Jul
2. Tan CX et al. delta-Catenin controls astrocyte morphogenesis via layer-specific astrocyte-neuron cadherin interactions. *J Cell Biol*. 2023 Nov

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