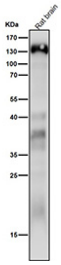
CTNND2 Antibody / Delta 2 Catenin [clone 31C89] (FY12815)

Catalog No.	Formulation	Size
FY12815	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

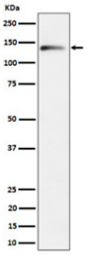
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31C89
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q9UQB3
Applications	Western Blot : 1:500-1:2000 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This CTNND2 antibody is available for research use only.



Western blot analysis of Delta 2 Catenin expression in rat brain cell lysate using CTNND2 antibody. Predicted molecular weight ~133 kDa.



Western blot analysis of Delta 2 Catenin expression in mouse brain cell lysate using CTNND2 antibody. Predicted molecular weight ~133 kDa.

Description

CTNND2 antibody detects catenin delta 2, also known as delta 2 catenin, encoded by the CTNND2 gene. Other identifiers include NPRAP, neural plakophilin related armadillo protein, and ARVD2 catenin. CTNND2 is a member of the armadillo catenin family, which function as scaffolding proteins in cell adhesion and signaling. Structurally, CTNND2 contains multiple armadillo repeats that mediate interactions with cadherins, actin cytoskeleton, and signaling molecules. Delta 2 catenin is highly expressed in the nervous system, where it regulates dendritic spine morphogenesis, synaptic adhesion, and plasticity.

CTNND2 antibody is widely applied in neuroscience, developmental biology, and cancer research. In neurons, delta 2 catenin links cadherins to cytoskeletal networks, stabilizing synaptic contacts and influencing learning and memory. CTNND2 mutations are associated with intellectual disability, autism spectrum disorder, and Alzheimer disease. By detecting CTNND2, researchers can investigate how adhesion and signaling complexes shape neuronal connectivity and cognition.

Applications of CTNND2 antibody include western blotting, immunohistochemistry, and immunofluorescence. Western blot assays detect CTNND2 protein in neuronal lysates, immunohistochemistry maps expression in brain regions such as hippocampus and cortex, and immunofluorescence highlights localization at dendritic spines. These assays provide strong tools for evaluating CTNND2 in neural development and disease.

Beyond neuroscience, CTNND2 is implicated in cancer biology. Delta 2 catenin expression has been reported in prostate, lung, and colorectal cancers, where it modulates Wnt signaling and epithelial mesenchymal transition. By applying CTNND2 antibody, scientists can study how altered adhesion and signaling contribute to tumor progression. The protein's dual role in adhesion and transcriptional regulation makes it relevant across fields.

CTNND2 interacts with cadherins, beta catenin, and small GTPases, integrating adhesion complexes with cytoskeletal remodeling. Loss of CTNND2 disrupts synaptic stability, while overexpression promotes abnormal signaling. These mechanisms underline its importance in both development and disease. Antibody based detection enables detailed analysis of these molecular interactions.

Therapeutically, CTNND2 is a candidate biomarker for neurodevelopmental disorders and certain cancers. Its role in synaptic function and adhesion highlights potential as a diagnostic marker. CTNND2 antibody from NSJ Bioreagents offers reliable specificity, ensuring accurate detection of this armadillo protein in both fundamental and translational studies.

Application Notes

Optimal dilution of the CTNND2 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human delta 2 Catenin was used as the immunogen for the CTNND2 antibody.

Storage

Store the CTNND2 antibody at -20oC.