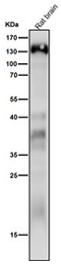
# CTNND2 Antibody 31C89 / Delta 2 Catenin Antibody [clone 31C89] (FY12815)

| 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 |

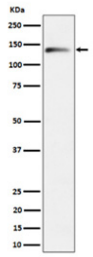
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

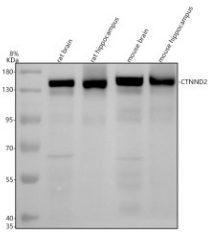
| | |
|---|---|
| **Species Reactivity** | Mouse, Rat |
| **Format** | Liquid |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Name** | 31C89 |
| **Purity** | Affinity chromatography |
| **Buffer** | Rabbit IgG in phosphate buffered saline, 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<br>Immunocytochemistry/Immunofluorescence: 1:50 |
| **Limitations** | This CTNND2 Antibody 31C89 / Delta 2 Catenin Antibody is available for research use only. |




CTNND2 Antibody 31C89 WB Analysis of Rat Brain Tissue. Western blot analysis of rat brain tissue lysate using Delta 2 Catenin Antibody clone 31C89. A prominent immunoreactive band is detected at approximately 133 kDa, consistent with the predicted molecular weight of CTNND2.




CTNND2 Antibody 31C89 WB Analysis of Mouse Brain Tissue. Western blot analysis of mouse brain tissue lysate using Delta 2 Catenin Antibody clone 31C89. A distinct immunoreactive band is detected at approximately 133 kDa, matching the predicted molecular weight of CTNND2.




CTNND2 Antibody 31C89 WB Analysis of Rat and Mouse Brain and Hippocampus Tissues. Western blot analysis of rat brain (lane 1), rat hippocampus (lane 2), mouse brain (lane 3), and mouse hippocampus (lane 4) tissue lysates using Delta 2 Catenin Antibody clone 31C89. A prominent band is detected at approximately 133 kDa in all four samples, consistent with the predicted molecular weight of CTNND2. Samples containing 30 ug of protein per lane were separated by 8% SDS-PAGE, and the primary antibody was used at a dilution of 1:500.

## Description

CTNND2 Antibody 31C89 / Delta 2 Catenin Antibody recognizes catenin delta 2, a member of the armadillo repeat-containing catenin family encoded by the CTNND2 gene. Also known as delta-catenin or neural plakophilin-related armadillo protein (NPRAP), CTNND2 is a cytoplasmic protein involved in neuronal adhesion, dendritic development, and synaptic organization. It is particularly abundant in the nervous system, where it contributes to the formation and maintenance of specialized cellular connections required for neuronal communication.

Structurally, CTNND2 contains multiple armadillo repeats that facilitate interactions with cadherins and other proteins associated with cell adhesion and intracellular signaling. Delta-catenin belongs to the p120-catenin subfamily, whose members regulate cadherin stability, membrane-associated protein complexes, and cytoskeletal organization. Through its association with classical cadherins, CTNND2 helps coordinate adhesive contacts with the dynamic remodeling of neuronal processes.

One of the principal functions of CTNND2 is the regulation of dendritic spine morphogenesis. Dendritic spines are small protrusions that form the postsynaptic compartments of many excitatory synapses. Their formation, maturation, and structural plasticity are closely associated with synaptic connectivity and activity-dependent changes in neuronal signaling. CTNND2 influences these processes through interactions with cadherin complexes and signaling pathways that regulate actin cytoskeletal dynamics. Its activity contributes to dendritic branching, spine development, and the stabilization of neuronal contacts.

CTNND2 also participates in intracellular signaling involving small Rho-family GTPases, which regulate actin organization and cellular morphology. Changes in delta-catenin expression or function can alter dendritic architecture and synaptic organization, making this protein relevant to studies of neuronal development and plasticity. Genetic alterations affecting CTNND2 have been investigated in neurodevelopmental disorders, including intellectual disability and autism spectrum disorder. Research has also explored its relationship with neuronal dysfunction and cognitive impairment.

Outside its established neuronal functions, altered CTNND2 expression has been reported in several malignancies, where its interactions with adhesion complexes and signaling proteins may influence cellular behavior. These findings highlight the broader importance of catenin family proteins in coordinating cell adhesion and intracellular signaling. CTNND2 Antibody 31C89 is relevant to research examining dendritic spine formation, synaptic connectivity, cadherin-associated signaling, and the molecular mechanisms underlying neuronal development.

Explore our Neuroscience Antibodies for additional targets involved in neuronal adhesion, dendritic spine development, synaptic organization, and the regulation of neuronal connectivity.

## Application Notes

Optimal dilution of the CTNND2 Antibody 31C89 / Delta 2 Catenin 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 31C89.

## Storage

Store the CTNND2 antibody at -20oC.

## Alternate Names

Catenin delta 2 antibody, Delta-catenin antibody, Delta 2 catenin antibody, Neural plakophilin-related armadillo protein antibody, NPRAP antibody, Neurojungin antibody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