

CTNND2/delta 2 Catenin Rabbit pAb

Catalog # AP99321

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UQB3
Other Accession	Q9UQB3
Host	Rabbit
Clonality	Polyclonal
Calculated MW	132656
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CTNND2/delta 2 Catenin
Epitope Specificity	111-210/1225
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the beta-catenin family. Contains 9 ARM repeats.
SUBUNIT	Binds to E-cadherin at a juxtamembrane site within the cytoplasmic domain. Interacts with PDZD2. Interacts with ZBTB33 (By similarity). Binds to PSEN1. Interacts with ARHGEF28. Interacts (via the extreme C-terminus) with FRMPD2 (via the PDZ 2 domain).
Post-translational modifications	O-glycosylated. Phosphorylated upon DNA damage, probably by ATM or ATR.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The Alpha-, Beta-, Gamma-, and Delta -catenins are proteins that bind to the highly conserved, intracellular cytoplasmic tail of E-cadherin. Together, the catenin/cadherin complexes play an important role mediating cellular adhesion. Alpha-catenin interacts with E-cadherin associated protein and also associates with other members of the cadherin family, such as N-cadherin and P-cadherin. Beta-catenin associates with the cytoplasmic portion of E-cadherin, which is necessary for the function of E-cadherin as an adhesion molecule. Beta-catenin also complexes with the tumor suppressor protein APC. Gamma-catenin, also known as plakoglobin, is a protein that binds ?catenin and N-cadherin. Gamma-catenin interacts with presenilin 1 and is expressed in the brain. The gene encoding Gamma-catenin maps to human chromosome 5p15.2. A hemizygous loss of the gene encoding Gamma-catenin leads to the mental retardation associated with Cri-du-Chat syndrome. In addition, the transmembrane phosphatase PTPm associates with catenin/ cadherin complexes and may regulate complex signaling.

Additional Information

Gene ID	1501
Other Names	GT24; NPRAP; CTND2_HUMAN; CTNND2; Delta-catenin; Neural

plakophilin-related ARM-repeat protein (NPRAP); Neurojungin; CTND2_RAT; CTND2_MOUSE; Catnd2; catenin delta 2; catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein); catenin (cadherin-associated protein), delta 2; neural plakophilin-related arm-repeat protein

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CTNND2
Synonyms	NPRAP
Function	Has a critical role in neuronal development, particularly in the formation and/or maintenance of dendritic spines and synapses (PubMed: 25807484). Involved in the regulation of Wnt signaling (PubMed: 25807484). It probably acts on beta-catenin turnover, facilitating beta-catenin interaction with GSK3B, phosphorylation, ubiquitination and degradation (By similarity). Functions as a transcriptional activator when bound to ZBTB33 (By similarity). May be involved in neuronal cell adhesion and tissue morphogenesis and integrity by regulating adhesion molecules.
Cellular Location	Nucleus {ECO:0000250 UniProtKB:O35927}. Cell junction, adherens junction {ECO:0000250 UniProtKB:O35927}. Cell projection, dendrite {ECO:0000250 UniProtKB:O35116}. Perikaryon
Tissue Location	Expressed in brain; highest expression is observed in fetal brain (PubMed:25807484).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.