

Catenin- β (Acetyl Lys49) rabbit pAb

Cat No.:ES20061

For research use only

Overview

Product Name	Catenin- β (Acetyl Lys49) rabbit pAb
Host species	Rabbit
Applications	WB; ELISA
Species	Human;Mouse;Rat
Cross-Reactivity	
Recommended dilutions	WB 1:1000-2000 ELISA 1:5000-20000
Immunogen	Synthesized peptide derived from human Catenin- β (Acetyl Lys49)
Specificity	This antibody detects endogenous levels of Human,Mouse,Rat Catenin- β (Acetyl Lys49)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	Catenin- β ;b-catenin;Beta catenin;Beta-catenin;Cadherin associated protein;Catenin (cadherin associated protein), beta 1, 88 kDa;Catenin beta 1;Catenin beta-1;CATNB;CHBCAT;CTNB1_HUMAN;CTNNB;CTNNB1;DKFZ CTNNB1 CTNNB OK/SW-cl.35 PRO2286
Gene Name	
Cellular localization	Cytoplasm . Nucleus . Cytoplasm, cytoskeleton . Cell junction, adherens junction . Cell junction . Cell membrane . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole. Cell junction, synapse . Cytoplasm, cytoskeleton, cilium basal body . Colocalized with RAPGEF2 and TJP1 at cell-cell contacts (By similarity). Cytoplasmic when it is unstabilized (high level of phosphorylation) or bound to CDH1. Translocates to the nucleus when it is stabilized (low level of phosphorylation). Interaction with GLIS2 and MUC1 promotes nuclear translocation. Interaction with EMD inhibits nuclear localization. The majority of beta-catenin is localized to the cell membrane. In interphase, colocalizes with CROCC between CEP250 puncta at the proximal end of





Purification	cent The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal
Concentration	1 mg/ml
Observed band	92kD
Human Gene ID	1499
Human Swiss-Prot Number	P35222
Alternative Names	CTNNB1; CTNNB; OK/SW-cl.35; Catenin beta-1; Beta-catenin
Background	disease:A chromosomal rearrangement involving CTNNB1 may be a cause of salivary gland pleiomorphic adenomas (PA) [181030]. Pleiomorphic adenomas are the most common benign epithelial tumors of the salivary gland. Translocation t(3;8)(p21;q12) with PLAG1.,disease:Activating mutations in CTNNB1 have oncogenic activity resulting in tumor development. Somatic mutations are found in various tumor types, including colon cancers, ovarian and prostate carcinomas, hepatoblastoma (HB), hepatocellular carcinoma (HCC). HBs are malignant embryonal tumors mainly affecting young children in the first three years of life.,disease:Defects in CTNNB1 are a cause of medulloblastoma (MDB) [MIM:155255]. MDB is a malignant, invasive embryonal tumor of the cerebellum with a preferential manifestation in children.,disease:Defects in CTNNB1 are a cause of pilomatrixoma (PTR) [MIM:132600]; a common benign skin tumor.,disease:Defects in CTNNB1 are associated with colorectal cancer (CRC) [MIM:114500].,disease:Defects in CTNNB1 are associated with ovarian cancer [MIM:167000]. Ovarian cancer is the leading cause of death from gynecologic malignancy. It is characterized by advanced presentation with loco-regional dissemination in the peritoneal cavity and the rare incidence of visceral metastases. These typical features relate to the biology of the disease, which is a principal determinant of outcome.,function:Involved in the regulation of cell adhesion and in signal transduction through the Wnt pathway.,online information:Beta-catenin entry,PTM:EGF stimulates tyrosine phosphorylation. Phosphorylation on Tyr-654 decreases CDH1 binding and enhances TBP binding.,PTM:Phosphorylation by GSK3B requires prior phosphorylation of Ser-45 by another kinase.





Phosphorylation proceeds then from Thr-41 to Ser-37 and Ser-33.,PTM:Ubiquitinated by a E3 ubiquitin ligase complex containing UBE2D1, SIAH1, CACYBP/SIP, SKP1A, APC and TBL1X (Probable). Its ubiquitination leads to its subsequent proteasomal degradation.,similarity:Belongs to the beta-catenin family.,similarity:Contains 12 ARM repeats.,subcellular location:Cytoplasmic when it is unstabilized (high level of phosphorylation) or bound to CDH1. Translocates to the nucleus when it is stabilized (low level of phosphorylation). Interaction with GLIS2 and MUC1 promotes nuclear translocation.,subunit:Two separate pools are found in the cytoplasm: one is PSEN1/cadherin/catenin complex which anchors to the actin cytoskeleton. The other pool is part of a large complex containing AXIN1, AXIN2, APC, CSNK1A1 and GSK3B that promotes phosphorylation on N-terminal Ser and Thr residues and ubiquitination of CTNNB1 via BTRC and its subsequent degradation by the proteasome. Wnt-dependent activation of DVL antagonizes the action of GSK3B. When GSK3B activity is inhibited the complex dissociates, CTNNB1 is dephosphorylated and is no longer targeted for destruction. The stabilized protein translocates to the nucleus, where it binds TCF/LEF-1 family members, TBP, BCL9 and possibly also RUVBL1 and CHD8. Binds CTNNBIP and EP300. CTNNB1 forms a ternary complex with LEF1 and EP300 that is disrupted by CTNNBIP1 binding (By similarity). Interacts with TAX1BP3 (via the PDZ domain); this interaction inhibits the transcriptional activity of CTNNB1 (By similarity). Interacts with AJAP1, BAIAP1, CARM1, CTNNA3, CXADR and PCDH11Y. Binds SLC9A3R1. Interacts with GLIS2 and MUC1. Interacts with SLC30A9. Interacts with XIRP1 (By similarity). Interacts with PTPRU (via the cytoplasmic juxtamembrane domain),tissue specificity:Expressed in several hair follicle cell types: basal and peripheral matrix cells, and cells of the outer and inner root sheaths. Expressed in colon.,

