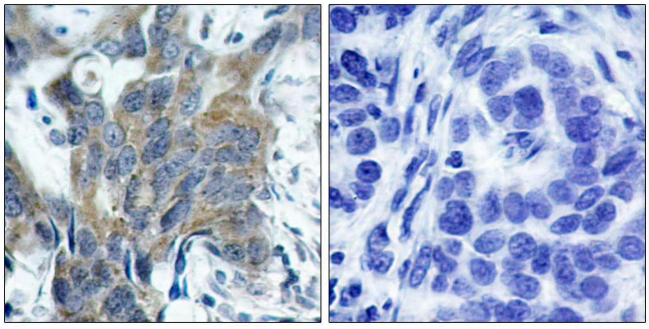
β Catenin (Phospho Ser33) Rabbit pAb

Catalog No	YP-Ab-19404
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	IHC、IF、WB、ELISA
Gene Name	CTNNB1 CTNNB OK/SW-cl.35 PRO2286
Immunogen	The antiserum was produced against synthesized peptide derived from human Catenin-beta around the phosphorylation site of Ser33. AA range:17-66
Specificity	Phospho-Catenin-β (S33) Polyclonal Antibody detects endogenous levels of Catenin-β protein only when phosphorylated at S33.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):LDsGI
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000; IHC 1:100-1:300; IF 1:200-1:1000; ELISA 1:10000; Not yet tested in other applications. Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0 (Cat#YS0004)
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CTNNB1 CTNNB OK/SW-cl.35 PRO2286;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;DKFZp686D02253;FLJ25606;FLJ37923; OTTHUMP00000162082;OTTHUMP00000165222;OTTHUMP00000165223; OTTHUMP00000209288;OTTHUMP00000209289;OK/SW-cl.35
Observed Band	90-100 kDa
Calculated Molecular Weight	781 aa, 86 kDa

Cell Pathway	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 centrioles , and this localization is dependent on CROCC and CEP250. In mitosis , when NEK2 activity increases , it localizes to centrosomes at spindle poles independent of CROCC. Colocalizes with CDK5 in the cell-cell contacts and plasma membrane of undifferentiated and differentiated neuroblastoma cells. Interaction with FAM53B promotes translocation to the nucleus (PubMed:25183871) . .
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. Present in cortical neurons (at protein level) . Expressed in breast cancer tissues (at protein level) (PubMed:29367600) .
Function	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 sheats. Expressed in colon. ,
Background	The protein encoded by this gene is part of a complex of proteins that constitute adherens junctions (AJs) . AJs are necessary for the creation and maintenance of epithelial cell layers by regulating cell growth and adhesion between cells. The encoded protein also anchors the actin cytoskeleton and may be responsible for transmitting the contact inhibition signal that causes cells to stop dividing once the epithelial sheet is complete. Finally , this protein binds to the product of the APC gene , which is mutated in adenomatous polyposis of the colon. Mutations in this gene are a cause of colorectal cancer (CRC) , pilomatrixoma (PTR) , medulloblastoma (MDB) , and ovarian cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq , Aug 2016] ,
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using Catenin-beta (Phospho-Ser33) Antibody. The picture on the right is blocked with the phospho peptide.