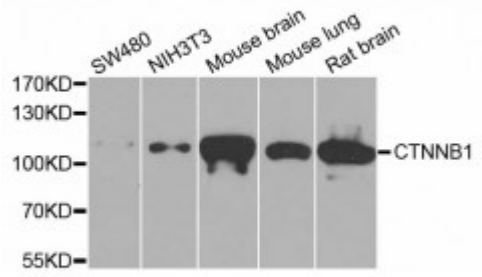
Anti-CTNNB1 Antibody



Description	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.

Model	STJ113822
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	WB
Immunogen	A synthetic peptide corresponding to a sequence within amino acids 1-100 of human CTNNB1 (NP_001895.1).
Gene ID	1499
Gene Symbol	CTNNB1
Dilution range	WB 1:500 - 1:2000
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)

Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	Catenin beta-1 Beta-catenin
Molecular Weight	85.497 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:2514OMIM:114500Reactome:R-HSA-195253
Alternative Names	Catenin beta-1 Beta-catenin
Function	Key downstream component of the canonical Wnt signaling pathway, In the absence of Wnt, forms a complex with 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, In the presence of Wnt ligand, CTNNB1 is not ubiquitinated and accumulates in the nucleus, where it acts as a coactivator for transcription factors of the TCF/LEF family, leading to activate Wnt responsive genes, Involved in the regulation of cell adhesion, as component of an E-cadherin:catenin adhesion complex, Acts as a negative regulator of centrosome cohesion, Involved in the CDK2/PTPN6/CTNNB1/CEACAM1 pathway of insulin internalization, Blocks anoikis of malignant kidney and intestinal epithelial cells and promotes their anchorage-independent growth by down-regulating DAPK2, Disrupts PML function and PML-NB formation by inhibiting RANBP2-mediated sumoylation of PML ,
Cellular Localization	Cytoplasm,
Post-translational Modifications	Phosphorylation at Ser-552 by AMPK promotes stabilizion of the protein, enhancing TCF/LEF-mediated transcription , Phosphorylation by GSK3B requires prior phosphorylation of Ser-45 by another kinase, Phosphorylation proceeds then from Thr-41 to Ser-37 and Ser-33, Phosphorylated by NEK2, EGF stimulates tyrosine phosphorylation, Phosphorylation on Tyr-654 decreases CDH1 binding and enhances TBP binding, Phosphorylated on Ser-33 and Ser-37 by HIPK2 and GSK3B, this phosphorylation triggers proteasomal degradation ,