Phospho-CTNNB1 (S33/S37) Recombinant Monoclonal Antibody

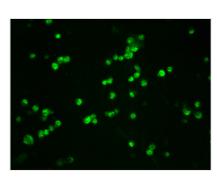|	
Product Code	CSB-RA006169A33phHU
Abbreviation	Catenin beta-1
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P35222
Immunogen	A synthesized peptide derived from Human Phospho-CTNNB1 (S33/S37)
Species Reactivity	Human
Tested Applications	ELISA, IF; Recommended dilution: IF:1:20-1:200
Relevance	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 (PubMed:17524503, PubMed:18077326, PubMed:18086858, PubMed:18957423, PubMed:21262353, PubMed:22647378, PubMed:22699938, PubMed:22155184). Promotes neurogenesis by maintaining sympathetic neuroblasts within the cell cycle (By similarity).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	Catenin beta-1, Beta-catenin, CTNNB1, CTNNB, OK/SW-cl.35, PRO2286
Immunogen Species	Homo sapiens (Human)
Research Area	Signal Transduction
Gene Names	CTNNB1

Clone No.	4C11

Image

Immunofluorescence staining of 293T cells(treated with 50nM Calyculin A for 30min) with CSB-RA006169A33phHU at 1:100,counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

The vectors expressing anti-CTNNB1 antibody were constructed as follows: immunizing an animal with a synthesized peptide derived from human Phospho-CTNNB1 (S33/S37), isolating the positive splenocyte and extracting RNA, obtaining DNA by reverse transcription, sequencing and screening CTNNB1 antibody gene, and amplifying heavy and light chain sequence by PCR and cloning them into plasma vectors. After that, the vector clones were transfected into the mammalian cells for production. The product is the recombinant CTNNB1 antibody. Recombinant CTNNB1 antibody in the culture medium was purified using affinity-chromatography. It can react with CTNNB1 protein from Human and is used in the ELISA, IF.

CTNNB1 (Catenin Beta 1) is a protein-coding gene. Diseases associated with CTNNB1 include Pilomatrixoma and Neurodevelopmental Disorder with Spastic Diplegia and Visual Defects. Associated pathways include the NF-kappaB pathway and apoptotic cleavage of cellular proteins. According to some studies, CTNNB1 may have the following characteristics.
CTNNB1 mutations are highly prevalent in sporadic castrated tumors. Mutations in the β-catenin gene (CTNNB1) have recently been implicated in the pathogenesis of some colon cancers and melanomas. CTNNB1 signaling plays a key role in the development of a considerable proportion of prostate cancer. The nuclear expression of β-catenin is an accurate immunohistochemical surrogate for CTNNB1 exon 3 mutations and thus may be considered in risk stratification for endometrial cancer.