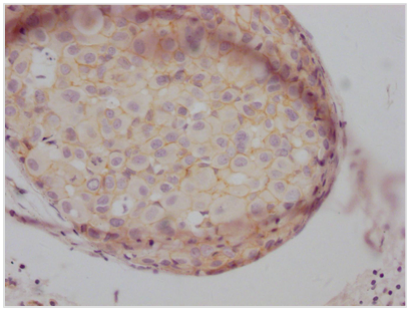
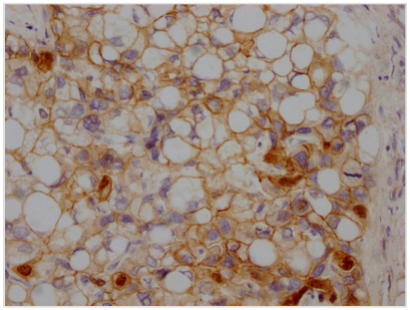
CTNNB1 Recombinant Monoclonal Antibody

Product Code	CSB-RA155605A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P35222
Immunogen	A synthesized peptide derived from human beta Catenin
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
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
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience; Cancer; Cardiovascular; Signal transduction; Stem cells
Gene Names	CTNNB1
Clone No.	5E1
Image	



IHC image of CSB-RA155605A0HU diluted at 1:100 and staining in paraffin-embedded human breast cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA155605A0HU diluted at 1:100 and staining in paraffin-embedded human liver cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

The creation of the CTNNB1 recombinant monoclonal antibody involves a precise and systematic process to ensure its exceptional quality and specificity. It begins with the isolation of B cells from the spleen of an immunized animal, where the synthesized peptide derived from human beta-Catenin acts as the immunogen. RNA is then extracted from the B cells and converted into cDNA through reverse transcription. The CTNNB1 antibody genes are amplified using specific primers targeting the antibody constant regions and inserted into an expression vector. This vector is subsequently introduced into host cells through transfection, allowing for the production of the CTNNB1 recombinant monoclonal antibody. After a period of cell culture, the antibody is harvested from the cell culture supernatant and subjected to a meticulous purification process utilizing affinity chromatography. This ensures the obtainment of a highly purified form of the CTNNB1 recombinant monoclonal antibody suitable for diverse applications. Rigorous characterization assays, including ELISA and IHC analysis, are performed to validate the antibody's specificity and functionality in detecting human CTNNB1 protein. The comprehensive production process guarantees the development of a reliable and effective CTNNB1 recombinant monoclonal antibody, serving as a valuable tool in research pertaining to CTNNB1.