# Recombinant Human Catenin beta-1 (CTNNB1)

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| **Product Code** | CSB-EP006169HU |
| **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. 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 . Promotes neurogenesis by maintaining sympathetic neuroblasts within the cell cycle . |
| **Abbreviation** | Recombinant Human CTNNB1 protein |
| **Storage** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |
| **Uniprot No.** | P35222 |
| **Alias** | Beta-catenin |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Homo sapiens (Human) |
| **Purity** | Greater than 90% as determined by SDS-PAGE. |
| **Sequence** | ATQADLMELDMAMEPDRKAAVSHWQQQSYLDSGIHSGATTTAPSLSGKGNP EEEDVDTSQVLYEWEQGFSQSFTQEQVADIDGQYAMTRAQRVRAAMFPETL DEGMQIPSTQFDAAHPTNVQRLAEPSQMLKHAVVNLINYQDDAELATRAIPEL TKLLNDEDQVVVNKAAVMVHQLSKKEASRHAIMRSPQMVSAIVRTMQNTNDV ETARCTAGTLHNLSHHREGLLAIFKSGGIPALVKMLGSPVDSVLFYAITTLHNLL LHQEGAKMAVRLAGGLQKMVALLNKTNVKFLAITTDCLQILAYGNQESKLIILAS GGPQALVNIMRTYTYEKLLWTTSRVLKVLSVCSSNKPAIVEAGGMQALGLHLT DPSQRLVQNCLWTLRNLSDAATKQEGMEGLLGTLVQLLGSDDINVVTCAAGIL SNLTCNNYKNKMMVCQVGGIEALVRTVLRAGDREDITEPAICALRHLTSRHQE AEMAQNAVRLHYGLPVVVKLLHPPSHWPLIKATVGLIRNLALCPANHAPLREQ GAIPRLVQLLVRAHQDTQRRTSMGGTQQQFVEGVRMEEIVEGCTGALHILAR DVHNRIVIRGLNTIPLFVQLLYSPIENIQRVAAGVLCELAQDKEAAEAIEAEGATA PLTELLHSRNEGVATYAAAVLFRMSEDKPQDYKKRLSVELTSSLFRTEPMAWN ETADLGLDIGAQGEPLGYRQDDPSYRSFHSGGYGQDALGMDPMMEHEMGG HHPGADYPVDGLPDLGHAQDLMDGLPPGDSNQLAWFDTDL |
| **Research Area** | Cell Adhesion |

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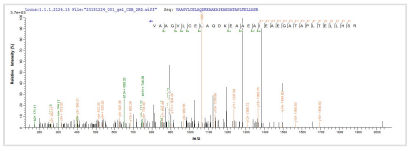
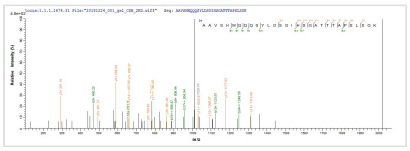
| **Source** | E.coli |
| **Target Names** | CTNNB1 |
| **Expression Region** | 2-781aa |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Tag Info** | N-terminal GST-tagged |
| **Mol. Weight** | 112.4kDa |
| **Protein Length** | Full Length of Mature Protein |

**Image**



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP006169HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) CTNNB1.



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**Description**

The production of this Recombinant Human IFNG protein began at the genetic level, where the coding sequence for the IFNG protein was first isolated and cloned into an expression plasmid vector. Recombinant DNA technology was used in the process. Next step was cloning. The expression vector must be introduced into the host cell (E.coli) so that the cells could be cultured and expressed the desired CTNNB1 protein. And we finally got the recombinant CTNNB1 protein with the purity of 90%+ determined by SDS-PAGE.

CTNNB1 is located on chromosome 3p22.1 with a size of 23.3 kb and consist of 16 exons. It encodes for β-Catenin, which is not only a coactivator in the Wnt-signaling pathway but also a key component in cadherin adhesion complex essential in cell–cell adhesion. In the canonical Wnt-signaling pathway, β-Catenin would translocate into the nucleus and binds to lymphoid enhancer factor/T-cell transcription factors, thereby activating downstream transcription. Pathogenic alternations in CTNNB1 were found to be associated with various visual problems such as hypermetropia, astigmatism, and strabismus. It is interesting to note that the majority of the previously reported patients with CTNNB1-related severe ophthalmologic manifestations were of Asian ethnicity. Further studies are required to determine whether ethnicity plays a role in the phenotypic variation inCTNNB1-related disease.

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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