Recombinant Human CTNNB1 protein, His/GST-tagged

Cat. No. CTNNB1-36H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CTNNB1 protein(Met1-Leu781), fused to His/GST-tag at the N-terminus, was expressed in Baculovirus-Insect Cells.
Species	Human
Source	Insect Cells
ProteinLength	Met1-Leu781
Description	beta-Catenin, also known as CTNNB1, is a member of the armadillo family of proteins. These proteins have multiple copies of the so-called armadillo repeat domain, which is specialized for protein-protein binding. It 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. CTNNB1 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, beta-Catenin binds to the product of the APC gene, which is mutated in adenomatous polyposis of the colon. Defects in beta-Catenin can cause colorectal cancer, pilomatrixoma (PTR), medulloblastoma, and ovarian cancer. CTNNB1 is a key dowstream component of the canonical Wnt signaling pathway. In the absence of Wnt, it 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, beta-Catenin is not ubiquitinated

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	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. CTNNB1 is involved in the regulation of cell adhesion. The majority of beta-catenin is localized to the cell membrane and is part of E-cadherin/catenin adhesion complexes which are proposed to couple cadherins to the actin cytoskeleton.
Predicted N Terminal	Met
Form	Lyophilized from sterile 50mM Tris, 150mM NaCl, 25% glycerol, pH8.0, 0.1mM EDTA, 1mM TCEP, 0.4mM PMSF, 0.5mM GSH. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human CTNNB1/GST chimera consists of 1018 amino acids and has a calculated molecular mass of 113 kDa. It migrates as an approximately 116 kDa band in SDS-PAGE under reducing conditions.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Purity	> 85% as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

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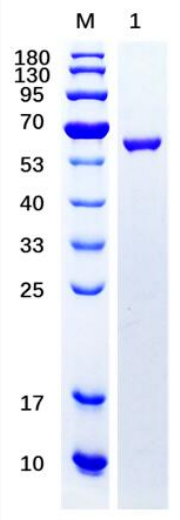
GENE INFORMATION

Gene Name	CTNNB1
Official Symbol	CTNNB1
Synonyms	EVR7; CTNNB; MRD19; NEDSDV; armadillo
Gene ID	1499
mRNA Refseq	NM_001098209.2
Protein Refseq	NP_001091679.1
MIM	116806
UniProt ID	P35222
SDS-PAGE of CTNNB1-36H	

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