

Datasheet for ABIN3091934

## CTNNB1 Protein (AA 2-781) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	CTNNB1
Protein Characteristics:	AA 2-781
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CTNNB1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

#### Product Details

Sequence:	<p>ATQADLMELD MAMEPDRKAA VSHWQQQSYL DSGIHSGATT TAPSLSGKGN PEEEDVDTSQ</p> <p>VLYEWEQGFS QSFTQEQVAD IDGQYAMTRA QRVRAAMFPE TLDEGMQIPS TQFDAAHPTN</p> <p>VQRLAEPSQM LKHAVVNLIN YQDDAELATR AIPELTKLLN DEDQVVVKA AVMVHQLSKK</p> <p>EASRHAIMRS PQMVSAIVRT MQNTNDVETA RCTAGTLHNL SHHREGLLAI FKSGGIPALV</p> <p>KMLGSPVDSV LFYAITTLHN LLLHQEGAKM AVRLAGGLQK MVALLNKTNV KFLAITTDCL</p> <p>QILAYGNQES KLIILASGGP QALVNIMRTY TYEKLLWTTTS RVLKVLSCVS SNKPAIVEAG</p> <p>GMQALGLHLT DPSQRLVQNC LWTLRNLSDA ATKQEGMEGL LGTLVQLLGS DDINVVTCAA</p> <p>GILSNLTCNN YKNKMMVCQV GGIEALVRTV LRAGDREDIT EPAICALRHL TSRHQEAEMA</p> <p>QNAVRLHYGL PVVVKLLHPP SHWPLIKATV GLIRNLALCP ANHAPLREQG AIPRLVQLLV</p> <p>RAHQDTQRRT SMGGTQQQFV EGVRMEEIVE GCTGALHILA RDVHNRIVIR GLNTIPLFVQ</p> <p>LLYSPIENIQ RVAAGVLCLE AQDKEAAEAI EAEGATAPLT ELLHSRNEGV ATYAAAVLFR</p> <p>MSEDKPQDYK KRLSVELTSS LFRTEPMAWN ETADLGLDIG AQGEPLGYRQ DDPSYRSFHS</p>
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GGYGQDALGM DPMMEHEMGG HHPGADYPVD GLPDLGHAQD LMDGLPPGDS NQLAWFDTDL

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human CTNNB1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

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### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

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### Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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### Sterility:

0.22 µm filtered

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### Endotoxin Level:

Protein is endotoxin free.

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## Product Details

Grade: Crystallography grade

## Target Details

Target: CTNNB1

Alternative Name: CTNNB1 ([CTNNB1 Products](#))

Background: 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 (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). {ECO:0000250|UniProtKB:Q02248, ECO:0000269|PubMed:17524503, ECO:0000269|PubMed:18077326, ECO:0000269|PubMed:18086858, ECO:0000269|PubMed:18957423, ECO:0000269|PubMed:21262353, ECO:0000269|PubMed:22155184, ECO:0000269|PubMed:22647378, ECO:0000269|PubMed:22699938}.

Molecular Weight: 86.3 kDa Including tag.

UniProt: [P35222](#)

Pathways: [WNT Signaling](#), [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Peptide Hormone Metabolism](#), [Regulation of Muscle Cell Differentiation](#), [Cell-Cell Junction Organization](#), [Tube Formation](#), [Maintenance of Protein Location](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#)

## Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee

## Application Details

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Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process