

Recombinant Mouse Ctnnb1 protein, His-tagged

Cat. No. Ctnnb1-5748M **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant Mouse Ctnnb1 aa. (Lys508~Leu762 (Accession # Q02248)) fused with N-terminal His tag was produced in E. coli cells.

Species Mouse

Source E.coli

ProteinLength Lys508~Leu762

Description

This gene encodes not only an important cytoplasmic component of the classical cadherin adhesion complex that forms the adherens junction in epithelia and mediates cell-cell adhesion in many other tissues but also a key signaling molecule in the canonical Wnt signaling pathway that controls cell growth and differentiation during both normal development and tumorigenesis. The gene product contains a central armadillo-repeat containing domain through which it binds the cytoplasmic tail of classical cadherins; meanwhile, it also binds alpha-catenin, which further links the cadherin complex to the actin cytoskeleton either directly or indirectly. Beta-catenin is therefore necessary for the adhesive function of classical cadherins. Another key function of this protein is to mediate the canonical Wnt signaling pathway and regulate gene transcription. Without Wnt signal, cytoplasmic beta-catenin that is not associated with the cadherin complex is quickly phosphorylated at the N-terminal Ser/Thr residues by the so called degradation complex containing axin, adenomatous polyposis coli (APC), casein kinase I, and GSK3B, then ubiquitylated by beta-TrCP, and degraded by the proteasome. However, in the presence of Wnt signal, the

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degradation complex is disrupted and the stabilized cytoplasmic beta-catenin translocates into the nucleus, where it binds various transcription factors and, together with these factors, regulates the transcription of many downstream genes. Mutations of this gene have been linked with various types of tumors. Alternatively spliced variants have been found for this gene.

Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 29.5kDa
Endotoxin	<1.0EU per 1g (determined by the LAL method)
Purity	>95%
Characteristic	The isoelectric point is 5.5.
Applications	SDS-PAGE; WB; ELISA; IP.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Storage buffer	Supplied as lyophilized form in PBS, pH7.4, containing 5% sucrose, 0.01% sarcosyl.
Reconstitution	Reconstitute in sterile PBS, pH7.2-pH7.4.

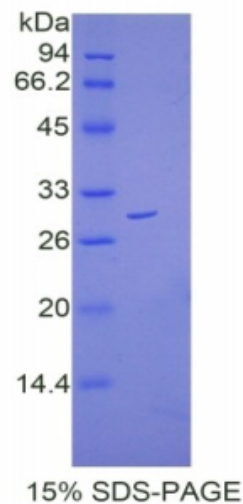
GENE INFORMATION

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Gene Name	Ctnnb1 catenin (cadherin associated protein), beta 1 [Mus musculus (house mouse)]
Official Symbol	Ctnnb1
Synonyms	Ctnnb1; catenin (cadherin associated protein), beta 1; Bfc; Mesc; Catnb; catenin beta-1; beta-catenin
Gene ID	12387
mRNA Refseq	NM_001165902.1
Protein Refseq	NP_001159374.1
UniProt ID	Q02248

SDS-PAGE


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