

PRODUCT INFORMATION



β-Catenin (human, recombinant)

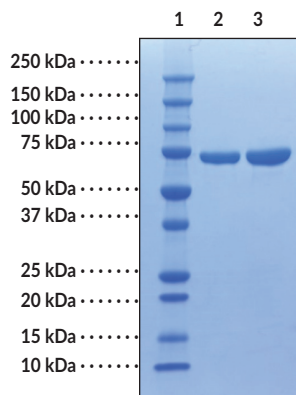
Item No. 28780

Overview and Properties

Synonyms:	Armadillo, Catenin (Cadherin-Associated Protein), β1, 88kDa, Catenin β-1, CTNNB1, EVR7, MRD19, NEDSDV
Source:	Recombinant N-terminal His-TEV-tagged human β-catenin (138-781) purified from <i>E. coli</i>
Amino Acids:	138-781
Uniprot No.:	P35222
Molecular Weight:	72.4 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	<i>batch specific</i>
Supplied in:	PBS, pH 7.4, with 1 mM TCEP and 10% glycerol
Protein	
Concentration:	<i>batch specific</i> mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: β-Catenin (human, recombinant) (2 μg)
Lane 3: β-Catenin (human, recombinant) (4 μg)

Representative gel image shown; actual purity may vary between each batch.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

β -Catenin is a transcriptional coactivator that is encoded by the *CTNNB1* gene in humans.^{1,2} It is a 781-amino acid protein comprised of an N-terminal domain containing glycogen synthase kinase 3 β (GSK3 β) phosphorylation sites, a C-terminal transactivation domain, and a central domain spanning amino acid residues 138-664.^{3,4} The central domain consists of 12 armadillo repeats and is required for binding to cadherins, TCF/LEF transcription factors, and adenomatous polyposis coli (APC). β -Catenin has roles in cell adhesion, canonical Wnt signaling, regulation of stem cells, embryonic development, and adult tissue homeostasis, among others.^{1,3} In the absence of Wnt, a complex consisting of axin, APC, GSK3 β , and casein kinase 1 (CK1), binds to and phosphorylates β -catenin, targeting it for ubiquitination and proteasomal degradation.¹ In the presence of Wnt, phosphorylation of β -catenin is inhibited, allowing β -catenin to translocate into the nucleus, where it interacts with TCF/LEF to activate expression of Wnt target genes. Activating mutations in *CTNNB1* that stabilize β -catenin have been associated with a variety of cancers, including hepatocellular and adrenocortical carcinomas, colorectal cancer, and pilomatricomas.⁴⁻⁷ Cayman's β -Catenin (human, recombinant) protein can be used for Western blot and ELISA applications.

References

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5. de La Coste, A., Romagnolo, B., Billuart, P., *et al.* Somatic mutations of the β -catenin gene are frequent in mouse and human hepatocellular carcinomas. *Proc. Natl. Acad. Sci. USA* **95(15)**, 8847-8851 (1998).
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