

**Synonym**

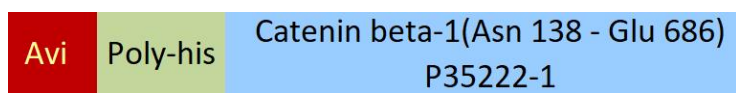
CTNNB, EVR7, MRD19, NEDSDV, armadillo

**Source**

Biotinylated Human Catenin beta-1, His,Avitag(CA1-H81E3) is expressed from E. coli cells. It contains AA Asn 138 - Glu 686 (Accession # [P35222-1](#) ).

Predicted N-terminus: Met

**Molecular Characterization**



This protein carries a polyhistidine tag at the N-terminus. The protein has a calculated MW of 63.8 kDa. The protein migrates as 60-66 kDa under reducing (R) condition (SDS-PAGE).

**Labeling**

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

**Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

**Formulation**

Supplied as 0.2 µm filtered solution in PBS with glycerol as protectant.

Contact us for customized product form or formulation.

**Shipping**

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

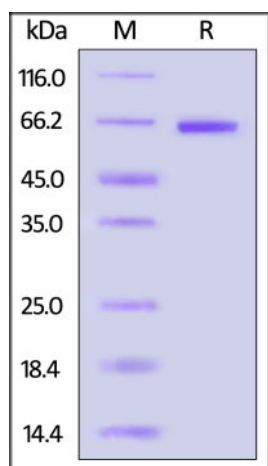
**Storage**

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

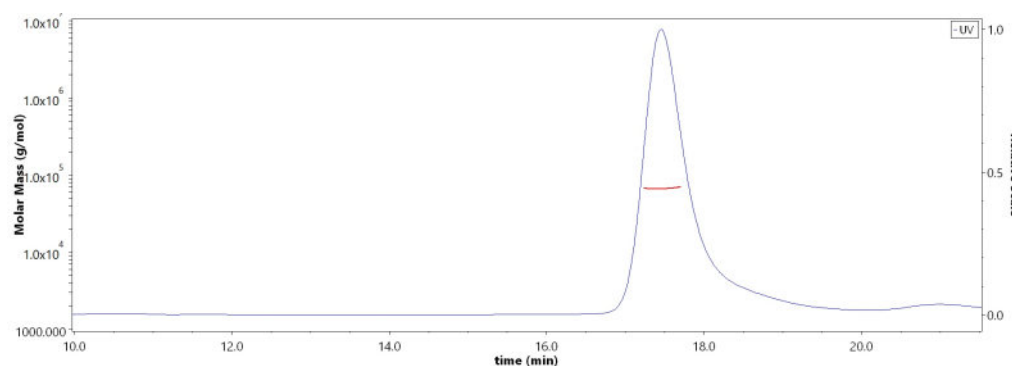
**SDS-PAGE**



Biotinylated Human Catenin beta-1, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

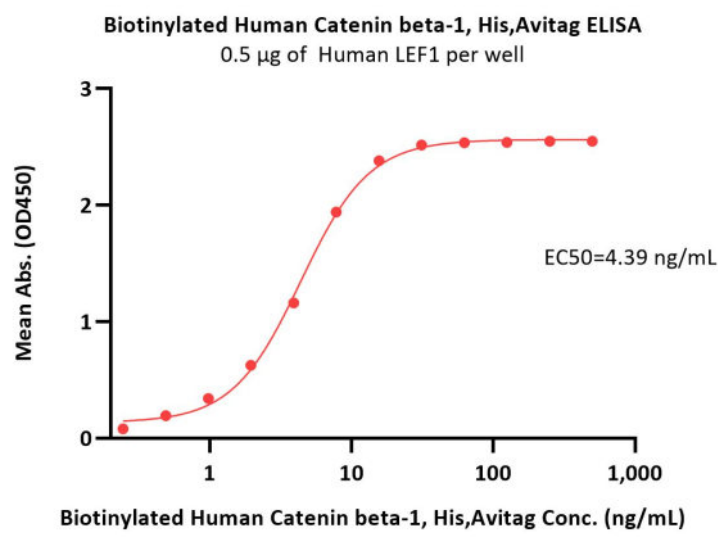
**Bioactivity-ELISA**

**SEC-MALS**



The purity of Biotinylated Human Catenin beta-1, His,Avitag (Cat. No. CA1-H81E3) is more than 95% and the molecular weight of this protein is around 62-72 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human LEF1 at 5 µg/mL (100 µL/well) can bind Biotinylated Human Catenin beta-1, His,Avitag (Cat. No. CA1-H81E3) with a linear range of 0.2-16 ng/mL (QC tested).

## 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, as component of an E-cadherin:catenin adhesion complex. 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. Involved in chondrocyte differentiation via interaction with SOX9: SOX9-binding competes with the binding sites of TCF/LEF within CTNNB1, thereby inhibiting the Wnt signaling.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.