beta-Catenin Protein, Mouse (sf9, His-GST)

Cat. No.:	HY-P74381
Synonyms:	beta-Catenin; Catenin beta-1; CTNNB; CTNNB1
Species:	Mouse
Source:	Sf9 insect cells
Accession:	Q02248 (M1-L781)
Gene ID:	12387
Molecular Weight:	Approximately 115 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, pH 8.0, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Beta-catenin, a pivotal player in the canonical Wnt signaling pathway, dynamically regulates cellular processes in response to Wnt ligands. In the absence of Wnt, beta-catenin participates in a complex with AXIN1, AXIN2, APC, CSNK1A1, and GSK3B, promoting its phosphorylation and ubiquitination, leading to subsequent degradation by the proteasome. Upon Wnt activation, beta-catenin accumulates in the nucleus, acting as a coactivator for transcription factors of the TCF/LEF family, thereby activating Wnt-responsive genes. This multifaceted protein also plays a role in cell adhesion, acting as a component of an E-cadherin:catenin adhesion complex. Beyond these functions, beta-catenin emerges as a negative regulator of centrosome cohesion and exhibits roles in insulin internalization, inhibition of anoikis, and promotion of neurogenesis. It modulates chondrocyte differentiation, positively regulates odontoblast differentiation during tooth germ formation, and interacts with various proteins, including regulators and effectors of Wnt signaling, highlighting its central role in diverse cellular processes. Beta-catenin's complex network of interactions underscores its significance in orchestrating cellular responses to intricate signaling cues, contributing to the regulation of critical cellular functions.

Caution: Product has not been fully validated for medical applications. For research use only.

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