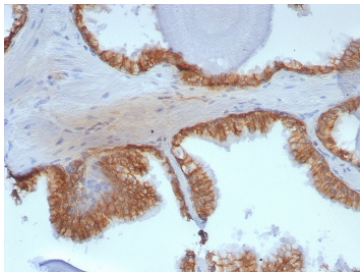
CTNNB1 Antibody / Beta-Catenin Stability Regulation Antibody [clone rCTNNB1/8043] (V4977)

Catalog No.	Formulation	Size
V4977-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4977-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4977SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

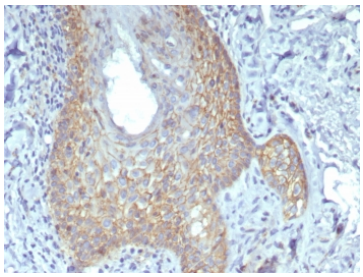
Recombinant | MOUSE MONOCLONAL

Bulk quote request

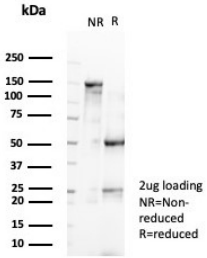
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rCTNNB1/8043
Purity	Protein A/G affinity
UniProt	P35222
Localization	Cell surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CTNNB1 Antibody / Beta-Catenin Stability Regulation Antibody is available for research use only.



CTNNB1 Stability Regulation Antibody Prostate Tissue IHC. Immunohistochemistry analysis of FFPE human prostate tissue using CTNNB1 Antibody (clone rCTNNB1/8043) shows strong membranous staining outlining epithelial cell borders, consistent with Catenin beta-1 localization at adherens junctions, with mild cytoplasmic signal. This pattern reflects regulated beta-catenin distribution associated with controlled protein stability under basal conditions. Glandular architecture is well preserved, and surrounding stromal regions display comparatively low staining. Hematoxylin counterstain provides nuclear contrast and tissue context. HIER: boil FFPE tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min and allow to cool before testing.



CTNNB1 Stability Regulation Antibody Skin Tissue IHC. Immunohistochemistry analysis of FFPE human skin tissue using CTNNB1 Antibody (clone rCTNNB1/8043) shows prominent membranous staining in epithelial cell layers with additional cytoplasmic signal, consistent with Catenin beta-1 localization at adherens junctions and regulated intracellular pools. This distribution reflects controlled beta-catenin stability within stratified epithelial structures. Tissue architecture is well preserved, and surrounding stromal components display comparatively low staining. Hematoxylin counterstain provides nuclear contrast and structural context. HIER: boil FFPE tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free CTNNB1 antibody (clone rCTNNB1/8043) as confirmation of integrity and purity.

Description

Catenin beta-1 (CTNNB1) is a central regulator of cellular signaling and adhesion whose activity is tightly controlled through protein stability and degradation mechanisms. The CTNNB1 Antibody / Beta-Catenin Stability Regulation Antibody is designed for studies focused on the dynamic control of beta-catenin levels, enabling investigation of pathways that govern its turnover and accumulation. CTNNB1 is encoded on chromosome 3p22.1 and belongs to the armadillo repeat protein family, characterized by multiple interaction domains that mediate binding to cadherins, transcription factors, and regulatory proteins.

The CTNNB1 antibody, also referred to as Beta-catenin antibody and Catenin beta-1 antibody in the literature, recognizes a protein whose stability is tightly regulated by the destruction complex, a multiprotein assembly that includes APC, AXIN, GSK3beta, and CK1. Under basal conditions, beta-catenin is phosphorylated at specific residues, marking it for ubiquitination and proteasomal degradation. This process maintains low cytoplasmic levels and prevents inappropriate activation of downstream signaling pathways. Disruption of this regulatory system leads to accumulation of beta-catenin and altered cellular behavior.

This CTNNB1 Antibody / Beta-Catenin Stability Regulation Antibody is uniquely positioned for studies examining the balance between degradation and stabilization of beta-catenin. Changes in CTNNB1 protein levels, rather than absolute presence or absence, are often the most informative readout of pathway activity. Experimental conditions that inhibit components of the destruction complex or activate upstream Wnt signaling result in increased beta-catenin stability, which can be detected as elevated protein levels or altered intracellular distribution. Monitoring these changes is essential for understanding signal transduction and cellular responses.

In addition to its role in degradation pathways, beta-catenin functions at the plasma membrane as part of cadherin-based adherens junctions, linking cell adhesion complexes to the actin cytoskeleton. The interplay between its structural role and its regulated turnover highlights the importance of precise control over CTNNB1 abundance. Dysregulation of beta-catenin stability is a hallmark of numerous cancers, including colorectal carcinoma, hepatocellular carcinoma, and endometrial cancer, where mutations in CTNNB1 or components of the destruction complex lead to persistent protein accumulation.

The recombinant mouse monoclonal rCTNNB1/8043 antibody provides consistent detection of CTNNB1 across experimental systems, supporting studies of protein stability, degradation dynamics, and signaling regulation. This antibody is suitable for detecting beta-catenin expression in research applications where changes in protein abundance and turnover are of primary interest. It enables evaluation of CTNNB1 regulation in response to pharmacological

treatments, genetic manipulation, or disease-associated alterations.

This antibody complements our Beta-Catenin Antibody / CTNNB1 Antibody (clone CTNNB1/2030R) for broader analysis of CTNNB1 expression and localization.

Application Notes

Optimal dilution of the CTNNB1 Antibody / Beta-Catenin Stability Regulation Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-200) from the human protein was used as the immunogen for the CTNNB1 antibody.

Storage

Aliquot the CTNNB1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CTNNB1 stability antibody, Beta-catenin degradation antibody, Catenin beta-1 regulation antibody, CTNNB1 turnover antibody, Beta catenin signaling regulation antibody