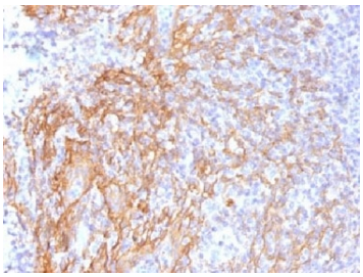
Beta-Catenin Antibody 6F9 / CTNNB1 Reference Standard Antibody [clone 6F9] (V3250)

Catalog No.	Formulation	Size
V3250-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3250-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3250SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

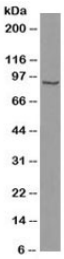
Citations (15)

Bulk quote request

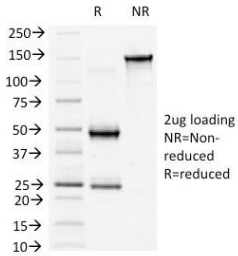
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	6F9
Purity	Protein G affinity chromatography
UniProt	P35222
Localization	Cell surface, cytoplasmic, cell junctions
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 1-2ug/ml Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Beta-Catenin Antibody / CTNNB1 Reference Standard Antibody is available for research use only.



Beta-Catenin Antibody 6F9 Tonsil IHC. Immunohistochemistry analysis of FFPE human tonsil tissue using Beta-Catenin Antibody (clone 6F9) shows membranous and cytoplasmic staining in epithelial components, consistent with CTNNB1 / Catenin beta-1 localization at adherens junctions and intracellular pools, with minimal staining in lymphoid regions. The observed pattern aligns with expected tissue-specific expression and supports use of this clone as a reference standard for consistent CTNNB1 detection. Hematoxylin counterstain provides nuclear contrast and structural context. HIER: boil FFPE tissue sections in 10 mM Tris with 1 mM EDTA, pH 9.0, for 10-20 min.



Beta-Catenin Antibody 6F9 HeLa WB. Western blot analysis of human HeLa cell lysate using Beta-Catenin Antibody (clone 6F9) detects a prominent band at approximately 90-95 kDa, consistent with the predicted molecular weight of Catenin beta-1 / CTNNB1 at ~85 kDa with a characteristic upward shift during SDS-PAGE. This migration pattern reflects phosphorylation-associated modulation of beta-catenin and supports consistent, reproducible detection of CTNNB1 using this reference standard clone.



SDS-PAGE Analysis of Purified, BSA-Free b-Catenin Antibody (clone 6F9). Confirmation of Integrity and Purity of the Antibody.

Description

Catenin beta-1 (CTNNB1) is a central regulator of cell adhesion and Wnt signaling, making it one of the most extensively studied proteins in cell biology and oncology. The Beta-Catenin Antibody 6F9 / CTNNB1 Reference Standard Antibody (clone 6F9) is positioned as a widely used reagent for consistent detection of CTNNB1 across experimental systems, supporting reproducibility and cross-study comparison. 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 complexes.

The Beta-Catenin Antibody 6F9 / CTNNB1 Reference Standard Antibody, also referred to as CTNNB1 antibody and Catenin beta-1 antibody in the literature, recognizes a protein with dual roles in structural organization and intracellular signaling. At the plasma membrane, beta-catenin interacts with E-cadherin and other cadherins to maintain adherens junctions and epithelial integrity. This interaction anchors cell-cell contacts to the actin cytoskeleton through alpha-catenin, supporting tissue architecture and mechanical stability.

In parallel, CTNNB1 functions as a key mediator of canonical Wnt signaling. Under basal conditions, beta-catenin is phosphorylated by the destruction complex, which includes APC, AXIN, GSK3beta, and CK1, leading to ubiquitination and proteasomal degradation. Activation of Wnt signaling inhibits this process, allowing beta-catenin to accumulate and translocate to the nucleus, where it regulates transcription through interaction with TCF/LEF transcription factors. This tightly controlled balance between degradation and stabilization is essential for normal cellular function.

This Beta-Catenin Antibody / CTNNB1 Reference Standard Antibody is uniquely positioned for studies requiring a consistent and widely comparable reagent. The extensive use of clone 6F9 in the literature supports its role as a benchmark antibody for evaluating CTNNB1 expression, localization, and signaling activity. Its reproducible performance enables researchers to align findings across experiments and publications, facilitating reliable interpretation of beta-catenin biology.

Dysregulation of CTNNB1 is implicated in numerous cancers, including colorectal carcinoma, hepatocellular carcinoma, prostate cancer, and melanoma, where mutations or pathway alterations lead to abnormal protein accumulation and signaling. As a result, beta-catenin antibody detection is frequently used to assess pathway activation, tumor differentiation, and disease progression. The ability to compare results obtained with a reference-standard clone enhances confidence in experimental conclusions.

The mouse monoclonal clone 6F9 provides stable and consistent detection of CTNNB1 across a range of experimental conditions. This antibody targets beta-catenin for research applications requiring reliable, reproducible performance aligned with widely reported data. Its use as a reference antibody supports both exploratory studies and validation of experimental findings involving CTNNB1.

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 Beta-Catenin Antibody 6F9 / CTNNB1 Reference Standard Antibody Clone 6F9 to be determined by the researcher.

Immunogen

Chicken beta-Catenin was used as the immunogen for the Beta-Catenin Antibody 6F9.

Storage

Store the Beta-Catenin Antibody 6F9 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Beta-catenin reference antibody, CTNNB1 benchmark antibody, Catenin beta-1 antibody clone 6F9, Beta catenin standard antibody, CTNNB1 well characterized antibody

Copyright © NSJ Bioreagents. All rights reserved.