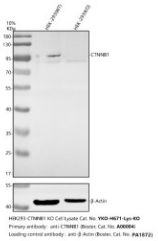
Beta-Catenin Polyclonal Antibody / CTNNB1 Polyclonal Antibody (R32807)

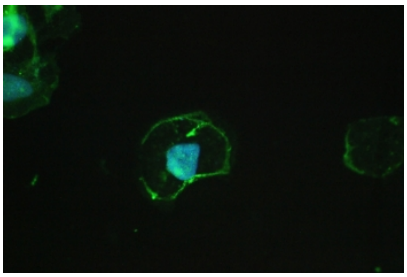
Catalog No.	Formulation	Size
R32807	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

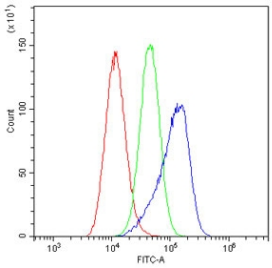
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose, 0.025% sodium azide
UniProt	P35222
Localization	Cell surface, cytoplasmic
Applications	Western Blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Immunocytochemistry: 2-4ug/ml Immunofluorescence: 5ug/ml FACS: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml (BSA-free formulation available)
Limitations	This Beta-Catenin Polyclonal Antibody / CTNNB1 Polyclonal Antibody is available for research use only.



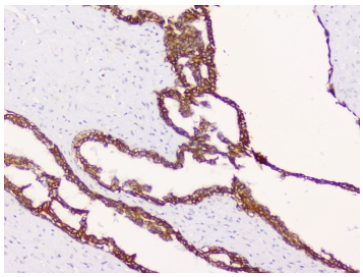
Beta-Catenin Polyclonal Antibody WB with CTNNB1 Knockout Validation. Western blot analysis of wild-type (WT) and CTNNB1 knockout (KO) human HEK293 whole cell lysates using the CTNNB1 Polyclonal Antibody at 0.5 ug/ml. Samples containing 30 ug of total protein per lane were separated by 10% SDS-PAGE under reducing conditions. A prominent band at approximately 95-100 kDa in WT cells is substantially reduced in CTNNB1 KO cells, supporting target-specific detection. The calculated molecular weight of beta-catenin is approximately 85 kDa, although migration near 95 kDa has also been reported with other commercially available antibodies. Beta-actin was used as a loading control and shows comparable signal in both samples.



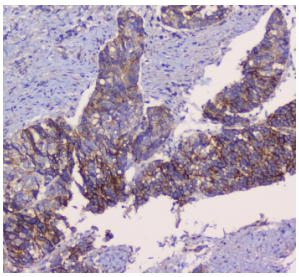
Beta-Catenin Polyclonal Antibody A431 Cell IF. Immunofluorescence analysis of FFPE human A431 cells using Beta-Catenin antibody shows distinct membranous green fluorescence outlining cell borders, consistent with CTNNB1 / Catenin beta-1 localization at adherens junctions, with minimal cytoplasmic signal. DAPI nuclear stain (blue) highlights nuclei, providing contrast to the peripheral staining pattern. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



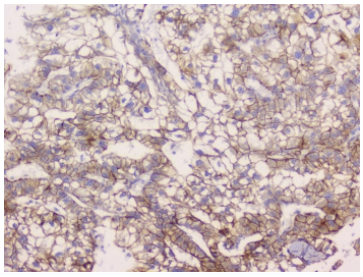
Beta-Catenin Polyclonal Antibody A549 Cell FACS. Flow cytometry analysis of human A549 cells using Beta-Catenin antibody shows a clear rightward shift of the blue population relative to both the red cells-only control and the green isotype control, indicating specific detection of CTNNB1 / Catenin beta-1 expression. The fluorescence profile supports intracellular localization consistent with beta-catenin distribution in cytoplasmic and membrane-associated pools following fixation and permeabilization. Red represents cells alone, green represents isotype control, and blue represents Beta-Catenin antibody staining.



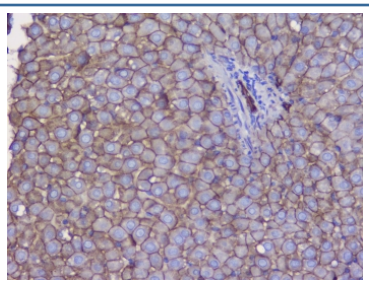
Beta-Catenin Polyclonal Antibody Breast Cancer Tissue IHC. Immunohistochemistry analysis of FFPE human breast cancer tissue using Beta-Catenin antibody shows strong membranous staining outlining tumor epithelial cells, consistent with CTNNB1 / Catenin beta-1 localization at adherens junctions, with mild cytoplasmic signal in select cells. Tumor glandular structures are clearly defined, while surrounding stromal regions display comparatively low staining. Hematoxylin counterstain provides nuclear contrast and tissue architecture. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



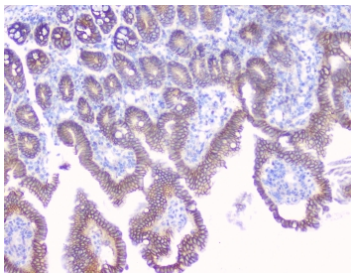
Beta-Catenin Polyclonal Antibody Prostate Cancer Tissue IHC. Immunohistochemistry analysis of FFPE human prostate cancer tissue using Beta-Catenin antibody shows strong membranous and cytoplasmic staining in tumor epithelial cells, consistent with CTNNB1 / Catenin beta-1 localization, with heterogeneous intensity across tumor regions. Malignant glandular structures are well delineated, while surrounding stromal tissue displays comparatively low staining. Hematoxylin counterstain provides clear nuclear contrast and architectural detail. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



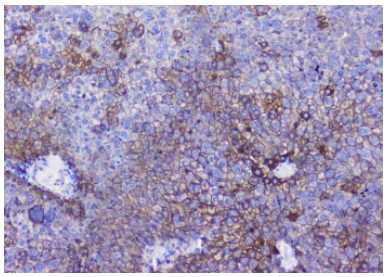
Beta-Catenin Polyclonal Antibody Liver Cancer Tissue IHC. Immunohistochemistry analysis of FFPE human liver cancer tissue using CTNNB1 Polyclonal Antibody shows diffuse cytoplasmic and membranous staining in tumor cells, consistent with CTNNB1 / Catenin beta-1 localization, with variable intensity across the tumor field. Tumor architecture is preserved with clusters of malignant cells displaying moderate to strong signal, while surrounding non-tumor regions show comparatively lower staining. Hematoxylin counterstain provides nuclear contrast and structural context. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



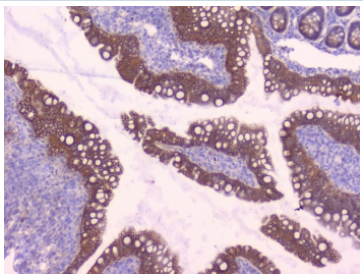
Beta-Catenin Polyclonal Antibody Mouse Liver Tissue IHC. Immunohistochemistry analysis of FFPE mouse liver tissue using Beta-Catenin antibody shows prominent membranous staining outlining hepatocyte borders, consistent with CTNNB1 / Catenin beta-1 localization at adherens junctions, with mild cytoplasmic signal in hepatocytes. Hepatic architecture is well preserved, and non-parenchymal regions display comparatively lower staining intensity. Hematoxylin counterstain provides nuclear contrast and structural detail. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



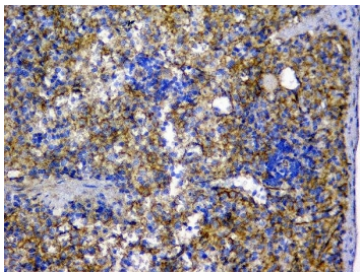
Beta-Catenin Polyclonal Antibody Mouse Small Intestine Tissue IHC. Immunohistochemistry analysis of FFPE mouse small intestine tissue using Beta-Catenin antibody shows strong membranous staining along epithelial cell borders lining the villi and crypts, consistent with CTNNB1 / Catenin beta-1 localization at adherens junctions, with mild cytoplasmic signal in enterocytes. Intestinal architecture is clearly preserved, and underlying stromal regions display comparatively low staining. Hematoxylin counterstain provides nuclear contrast and tissue context. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



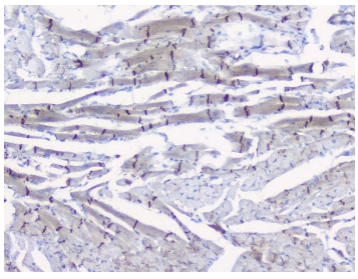
Beta-Catenin Polyclonal Antibody Rat Liver Tissue IHC. Immunohistochemistry analysis of FFPE rat liver tissue using Beta-Catenin antibody shows membranous staining outlining hepatocyte borders with additional cytoplasmic signal, consistent with CTNNB1 / Catenin beta-1 localization at adherens junctions and intracellular pools. Hepatic architecture is preserved, with hepatocyte plates clearly defined and non-parenchymal regions displaying comparatively low staining intensity. Hematoxylin counterstain provides nuclear contrast and structural detail. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



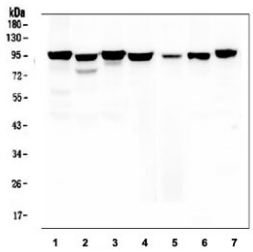
Beta-Catenin Polyclonal Antibody Rat Small Intestine Tissue IHC. Immunohistochemistry analysis of FFPE rat small intestine tissue using Beta-Catenin antibody shows strong membranous staining along epithelial cell borders lining villi and crypt structures, consistent with CTNNB1 / Catenin beta-1 localization at adherens junctions, with mild cytoplasmic signal in enterocytes. Intestinal architecture is well preserved, and underlying stromal compartments display comparatively low staining intensity. Hematoxylin counterstain provides nuclear contrast and structural context. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



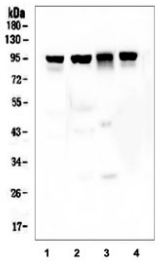
Beta-Catenin Polyclonal Antibody Rat Spleen Tissue IHC. Immunohistochemistry analysis of FFPE rat spleen tissue using Beta-Catenin antibody shows diffuse cytoplasmic and membranous staining across splenic cell populations, consistent with CTNNB1 / Catenin beta-1 localization, with variable intensity between red pulp and lymphoid regions. Cellular architecture is preserved, and background staining remains low in non-cellular areas. Hematoxylin counterstain provides clear nuclear contrast and tissue context. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



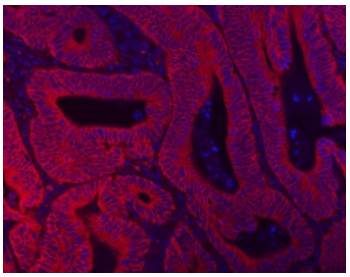
Beta-Catenin Polyclonal Antibody Rat Heart Tissue IHC. Immunohistochemistry analysis of FFPE rat heart tissue using Beta-Catenin antibody shows membranous staining along cardiomyocyte cell borders, consistent with CTNNB1 / Catenin beta-1 localization at intercellular junctions, with low to moderate cytoplasmic signal. Cardiac muscle fibers are well preserved, and interstitial regions display minimal staining. Hematoxylin counterstain provides nuclear contrast and structural detail. HIER: steam FFPE sections in pH 6 citrate buffer for 20 min and allow to cool prior to testing.



Beta-Catenin Polyclonal Antibody Human Cell Line Panel WB. Western blot analysis of 1) human placenta, 2) PC-3, 3) U-87 MG, 4) Caco-2, 5) HeLa, 6) A549, and 7) K562 lysates using Beta-Catenin Antibody for WB detects a consistent band at approximately 90-95 kDa across all samples, aligning with the predicted molecular weight of Catenin beta-1 / CTNNB1 at ~85 kDa with a characteristic upward shift during SDS-PAGE. The uniform banding pattern across diverse epithelial and cancer cell lines supports reliable detection of CTNNB1 and is consistent with phosphorylation-regulated electrophoretic mobility of beta-catenin.



Beta-Catenin Polyclonal Antibody Rodent Tissue WB. Western blot analysis of 1) rat heart, 2) mouse heart, 3) mouse lung, and 4) mouse liver lysates using Beta-Catenin Antibody for WB detects a consistent band at approximately 90-95 kDa across all samples, aligning with the predicted molecular weight of Catenin beta-1 / CTNNB1 at ~85 kDa with a characteristic upward shift during SDS-PAGE. The uniform banding pattern across rodent tissues supports cross-species detection of CTNNB1 and is consistent with phosphorylation-associated modulation of beta-catenin electrophoretic mobility.



Beta-Catenin Polyclonal Antibody Intestinal Cancer Tissue IF. Immunofluorescence analysis of FFPE human intestinal cancer tissue using CTNNB1 Polyclonal Antibody shows strong red fluorescence outlining epithelial cell borders with additional cytoplasmic signal, consistent with CTNNB1 / Catenin beta-1 localization at adherens junctions and intracellular pools. Tumor glandular architecture is clearly defined, and DAPI nuclear stain (blue) highlights nuclei, providing contrast to the beta-catenin signal. HIER: boil FFPE tissue sections in pH 8 EDTA for 20 min and allow to cool before testing.

Description

Beta-Catenin Polyclonal Antibody / CTNNB1 Polyclonal Antibody recognizes beta-catenin, a multifunctional protein that connects cadherin-mediated cell adhesion with intracellular signaling and transcriptional regulation. Encoded by the CTNNB1 gene, beta-catenin belongs to the armadillo repeat protein family and contains a central region of repeated structural motifs that facilitate interactions with numerous binding partners. Its ability to participate in distinct protein complexes allows beta-catenin to influence epithelial organization, tissue development, cellular proliferation, and differentiation.

At adherens junctions, beta-catenin associates with the cytoplasmic domains of classical cadherins and connects these adhesion complexes to alpha-catenin and the actin cytoskeleton. This arrangement contributes to the mechanical integrity of epithelial tissues and helps coordinate changes in cell shape and organization. The distribution of beta-catenin between membrane-associated and intracellular pools is dynamically regulated, reflecting its involvement in both structural and signaling processes. Changes in cadherin expression or junctional organization can influence beta-catenin localization and availability for other cellular functions.

Beta-catenin is also the principal transcriptional effector of canonical Wnt signaling. In the absence of Wnt stimulation, a destruction complex containing APC, AXIN, GSK3 beta, and casein kinase 1 promotes beta-catenin phosphorylation, ubiquitination, and proteasomal degradation. Wnt pathway activation inhibits this degradation mechanism, allowing beta-catenin to accumulate and enter the nucleus. There, it associates with TCF/LEF transcription factors to regulate genes involved in cell proliferation, differentiation, and tissue homeostasis. The balance between beta-catenin stabilization and degradation is therefore essential for appropriate cellular responses to developmental and environmental signals.

Dysregulation of beta-catenin signaling is implicated in several malignancies, particularly colorectal cancer and hepatocellular carcinoma. Mutations affecting CTNNB1 or components of its regulatory machinery can promote inappropriate protein stabilization and sustained transcriptional activity. Altered subcellular localization is also relevant to tumor biology because redistribution from cell junctions to cytoplasmic or nuclear compartments can accompany changes in signaling and tissue architecture. NSJ Bioreagents offers this Beta-Catenin Polyclonal Antibody for investigating the relationship between cell adhesion, Wnt pathway regulation, and cancer-associated alterations in beta-catenin activity.

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 Polyclonal Antibody / CTNNB1 Polyclonal Antibody should be determined by the researcher.

Immunogen

A recombinant human protein corresponding to amino acids A2-K233 was used as the immunogen for the Beta Catenin antibody.

Storage

After reconstitution, the Beta Catenin antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Beta-catenin WB antibody, CTNNB1 western blot antibody, Catenin beta-1 WB antibody, Beta catenin immunoblot antibody, CTNNB1 protein detection antibody

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