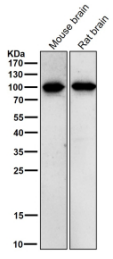
Phospho-Beta Catenin (pThr41/pSer45) Antibody [clone 32C69] (FY12499)

Catalog No.	Formulation	Size
FY12499	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

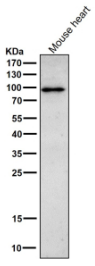
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32C69
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P35222
Applications	Western Blot : 1:500-1:2000
Limitations	This Phospho-Beta Catenin (pThr41/pSer45) antibody is available for research use only.



All lanes use the Phospho-Beta Catenin (pThr41/pSer45) antibody at 1:1000 dilution for 1 hour at room temperature.



All lanes use the Phospho-Beta Catenin (pThr41/pSer45) antibody at 1:1000 dilution for 1 hour at room temperature.

Description

Phospho-Beta Catenin (pThr41/pSer45) antibody detects beta catenin phosphorylated at threonine 41 and serine 45. Beta catenin, encoded by the CTNNB1 gene, is a multifunctional protein involved in cell adhesion and Wnt signaling. In adherens junctions, beta catenin binds to cadherins and links them to the actin cytoskeleton. In the Wnt pathway, beta catenin functions as a transcriptional coactivator that regulates genes controlling proliferation and differentiation. Phosphorylation at Thr41 and Ser45 targets beta catenin for ubiquitination and proteasomal degradation, providing a key mechanism for pathway regulation.

Phospho-Beta Catenin (pThr41/pSer45) antibody is widely used in cancer research, developmental biology, and signaling studies. Aberrant stabilization of beta catenin due to impaired phosphorylation leads to constitutive activation of Wnt signaling and is a hallmark of many cancers. By detecting phosphorylated beta catenin, this antibody enables monitoring of degradation signals and pathway regulation.

The antibody is suitable for western blotting, immunohistochemistry, and immunofluorescence. Western blot assays with Phospho-Beta Catenin (pThr41/pSer45) antibody reveal phosphorylated bands distinct from non phosphorylated forms. Immunohistochemistry maps phospho beta catenin in tissues, while immunofluorescence highlights subcellular localization at membranes and cytoplasm under conditions of Wnt regulation. These applications provide high resolution insight into signaling events.

Phosphorylation of beta catenin at Thr41 and Ser45 is mediated by casein kinase I and glycogen synthase kinase 3, initiating a cascade of phosphorylation events that promote its degradation. Dysregulation of this process contributes to tumorigenesis, particularly in colorectal, liver, and ovarian cancers. By using Phospho-Beta Catenin (pThr41/pSer45) antibody, researchers can evaluate how phosphorylation dependent regulation of CTNNB1 impacts oncogenic signaling.

Beyond oncology, Wnt beta catenin signaling plays roles in stem cell biology, embryogenesis, and tissue regeneration. Monitoring phosphorylation at key sites provides mechanistic understanding of pathway control in diverse contexts. The phospho specific antibody therefore serves as a critical reagent for investigating developmental biology and regenerative medicine.

Phospho-Beta Catenin (pThr41/pSer45) antibody provided by NSJ Bioreagents delivers strong specificity for monitoring phosphorylation events, supporting accurate analysis of Wnt signaling and cell adhesion regulation.

Application Notes

Optimal dilution of the Phospho-Beta Catenin (pThr41/pSer45) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-beta Catenin (T41 + S45) was used as the immunogen for the Phospho-Beta Catenin (pThr41/pSer45) antibody.

Storage

Store the Phospho-Beta Catenin (pThr41/pSer45) antibody at -20oC.