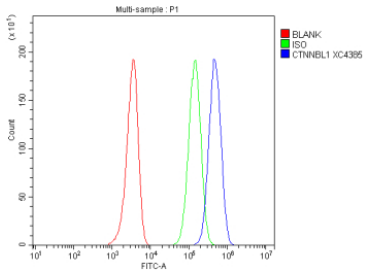
CTNNBL1 Antibody / Catenin beta like 1 (FY12320)

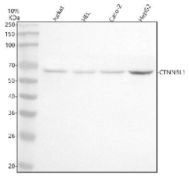
Catalog No.	Formulation	Size
FY12320	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8WYA6
Applications	Western Blot: 0.25-0.5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This CTNNBL1 antibody is available for research use only.



Flow Cytometry analysis of HEL cells using anti-CTNNBL1 antibody. Overlay histogram showing HEL cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CTNNBL1 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of CTNNBL1 using anti-CTNNBL1 antibody. Lane 1: human Jurkat whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human Caco-2 whole cell lysates, Lane 4: human HepG2 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CTNNBL1 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. The expected molecular weight of CTNNBL1 is ~65 kDa.

Description

CTNNBL1 antibody is used to study Catenin beta like 1, a nuclear protein that plays critical roles in RNA splicing, nuclear import, and regulation of the cell cycle. Unlike classical catenins that stabilize cadherin complexes at the cell membrane, Catenin beta like 1 is localized to the nucleus and interacts with core spliceosome proteins to ensure fidelity of pre-mRNA processing. This specialization makes CTNNBL1 a distinct member of the catenin-related family and a protein of increasing interest to molecular biologists.

Catenin beta like 1 contains armadillo (ARM) repeat domains that are structurally related to those in beta-catenin, but its function diverges toward nuclear events. Through these domains, CTNNBL1 associates with CDC5L, PRPF19, and additional splicing regulators, anchoring them within the spliceosomal complex. These interactions preserve accurate transcript maturation, prevent errors in gene expression, and safeguard the cell against the downstream consequences of mis-splicing. Because abnormal splicing can drive both oncogenesis and immune dysfunction, researchers frequently use CTNNBL1 antibody to map spliceosome activity and evaluate how this protein stabilizes nuclear machinery.

Recent studies have shown that Catenin beta like 1 is not limited to splicing but also functions in nuclear import pathways. CTNNBL1 assists in shuttling proteins that contain nuclear localization signals, ensuring that transcription factors and regulatory proteins reach the nucleus where they execute their functions. This process is fundamental for cell cycle regulation, DNA repair, and stress responses. When CTNNBL1 is disrupted, cells display impaired nuclear transport, altered gene expression, and reduced viability, underscoring its essential nature. With CTNNBL1 antibody, scientists can visualize these processes in detail using immunofluorescence, western blotting, and immunoprecipitation approaches.

Cancer biology has highlighted the importance of Catenin beta like 1. Abnormal expression of CTNNBL1 has been detected in colorectal cancer, breast cancer, and hematological malignancies, linking its function to tumor progression. Genetic polymorphisms in the CTNNBL1 gene have also been associated with autoimmune disease susceptibility and even with responses to viral infections. Researchers can therefore employ CTNNBL1 antibody to investigate how this nuclear factor contributes to disease risk, therapeutic response, and the molecular shifts that occur in malignancy. These insights are critical for understanding how dysregulated splicing and nuclear transport alter cell fate in pathological states.

The CTNNBL1 antibody offered by NSJ Bioreagents supports these lines of inquiry by providing reliable detection across a variety of assay platforms. In immunohistochemistry, it helps define nuclear localization patterns and expression levels in tissues, allowing correlation between CTNNBL1 levels and disease outcomes. In immunoprecipitation, it enables enrichment of spliceosomal complexes for downstream mass spectrometry or RNA analysis, clarifying which proteins and RNAs are bound by CTNNBL1 under different cellular states. In functional assays, use of CTNNBL1 antibody can help validate knockdown or overexpression experiments, ensuring that observed phenotypes directly reflect altered CTNNBL1 levels.

Beyond cancer and immunity, CTNNBL1 has relevance in developmental biology. Proper splicing and nuclear transport are fundamental for embryogenesis, and disruption of CTNNBL1 can impair tissue growth and differentiation. Neurobiology research has also turned attention to CTNNBL1, as RNA processing errors are linked to neurodegenerative conditions such as amyotrophic lateral sclerosis and spinal muscular atrophy. By applying CTNNBL1 antibody in these

areas, investigators can track how RNA maturation and nuclear protein import influence neural survival and function.

As more laboratories study the consequences of RNA dysregulation, CTNNBL1 antibody has become an indispensable reagent for connecting nuclear mechanics to cellular phenotypes. Its applications in cancer, autoimmunity, virology, and neurodegeneration research reflect the broad significance of Catenin beta like 1 in human biology. The antibody provided by NSJ Bioreagents ensures dependable performance in both exploratory and translational studies, supporting researchers who are mapping the critical pathways that safeguard genomic stability and cellular health.

Application Notes

Optimal dilution of the CTNNBL1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human CTNNBL1 recombinant protein (Position: Q122-E231) was used as the immunogen for the CTNNBL1 antibody.

Storage

After reconstitution, the CTNNBL1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Copyright © NSJ Bioreagents. All rights reserved.