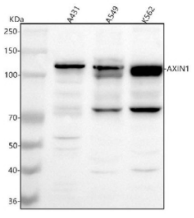
AXIN1 Antibody / Axin-1 (FY12261)

Catalog No.	Formulation	Size
FY12261	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	O15169
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This AXIN1 antibody is available for research use only.



Western blot analysis of AXIN1 using anti-AXIN1 antibody. Lane 1: human whole cell lysates, Lane 2: human whole cell lysates, Lane 3: human K562 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-AXIN1 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. AXIN1 antibody detects one or two bands between 90-100 kDa in the indicated cell lysates, consistent with full-length AXIN1 and its phosphorylated form. A smaller band at ~70 kDa is observed in A549 and K562 lysates, likely representing a truncated C-terminal fragment generated by regulated proteolysis or caspase cleavage.

Description

AXIN1 antibody detects Axin-1, encoded by the AXIN1 gene on chromosome 16p13.3. AXIN1 antibody is widely applied in studies of Wnt signaling, cell fate determination, and cancer. Axin-1 is a scaffold protein that functions as a negative

regulator of the canonical Wnt signaling pathway by promoting degradation of beta-catenin. It is essential for development, stem cell maintenance, and oncogenesis regulation. Through its multiple interaction domains, Axin-1 coordinates formation of the beta-catenin destruction complex, ensuring tight regulation of Wnt target gene expression.

Structurally, Axin-1 is a ~96 kDa cytoplasmic protein composed of an RGS domain, coiled-coil regions, and interaction motifs for APC, GSK3, and beta-catenin. These domains enable assembly of the multiprotein destruction complex. Axin-1 also binds Dishevelled, tankyrase, and other regulators that modulate Wnt activity. Alternative isoforms exist with altered binding properties, influencing Wnt signaling output.

Functionally, Axin-1 acts as a central scaffold in beta-catenin regulation. In the absence of Wnt ligands, Axin-1 recruits beta-catenin, APC, CK1, and GSK3 to promote phosphorylation and degradation of beta-catenin, suppressing transcriptional activation. Upon Wnt stimulation, Axin-1 is destabilized by tankyrase-mediated poly(ADP-ribosyl)ation, allowing beta-catenin accumulation and target gene activation. Researchers use AXIN1 antibody to study Wnt pathway regulation, developmental processes, and tumorigenesis.

Clinically, AXIN1 mutations and deletions have been identified in hepatocellular carcinoma, medulloblastoma, and colorectal cancer, underscoring its tumor suppressor role. Dysregulation of Axin-1 contributes to abnormal Wnt signaling, a hallmark of many cancers. AXIN1 is also implicated in developmental defects and stem cell differentiation. Because Wnt signaling is a therapeutic target, Axin-1 is under investigation as a biomarker and potential drug target. NSJ Bioreagents supplies AXIN1 antibody for Wnt signaling, cancer, and developmental research.

Experimentally, AXIN1 antibody is applied in western blotting to detect the ~96 kDa protein, in immunofluorescence microscopy to assess cytoplasmic puncta, and in immunohistochemistry to study tumor tissue. Co-immunoprecipitation with AXIN1 antibody identifies destruction complex partners and signaling regulators.

Explore our AXIN1 Antibody / Wnt Signaling Scaffold Protein Antibody page for additional validation data and applications involving Wnt signaling, beta-catenin regulation, and developmental pathway control.

Application Notes

Optimal dilution of the AXIN1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human AXIN1 recombinant protein (Position: M1-K811) was used as the immunogen for the AXIN1 antibody.

Storage

After reconstitution, the AXIN1 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.