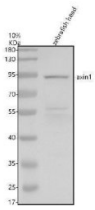
Zebrafish AXIN1 Antibody / Axis Inhibition Protein 1 Antibody (RZ1364)

Catalog No.	Formulation	Size
RZ1364	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/mL.
UniProt	P57094
Applications	Western blot: 0.5-1ug/ml
Limitations	This Zebrafish AXIN1 Antibody / Axis Inhibition Protein 1 Antibody is available for research use only.



Zebrafish AXIN1 / Axis Inhibition Protein 1 Antibody Wnt Signaling WB. Western blot analysis of zebrafish head tissue lysate using Zebrafish AXIN1 Antibody demonstrates a prominent immunoreactive band at approximately 94 kDa, consistent with the predicted molecular weight of Axis Inhibition Protein 1 (AXIN1). AXIN1 is a scaffold protein that serves as a central regulator of the Wnt/beta-catenin signaling pathway by coordinating assembly of the beta-catenin destruction complex and controlling downstream developmental signaling events. Expression in zebrafish head tissue is consistent with the established role of AXIN1 in embryonic patterning, neural development, tissue specification, and regulation of cellular differentiation. The observed band closely matches the expected molecular weight and supports specific recognition of AXIN1 in zebrafish tissue lysates. Electrophoresis was performed on a 10% SDS-PAGE gel under reducing conditions followed by transfer to a nitrocellulose membrane. Signal was detected using an HRP-conjugated secondary antibody and enhanced chemiluminescent substrate.

Description

Zebrafish AXIN1 Antibody / Axis Inhibition Protein 1 Antibody recognizes AXIN1, a scaffold protein that serves as a central regulator of the Wnt/beta-catenin signaling pathway. AXIN1 functions by assembling multi-protein complexes that

control beta-catenin stability and coordinate downstream signaling events involved in embryonic development, tissue patterning, and cellular differentiation. Through its ability to organize signaling components into functional regulatory complexes, AXIN1 plays a critical role in maintaining proper developmental signaling and cellular homeostasis. The highly conserved nature of Wnt pathway regulation has established zebrafish as an important model for investigating AXIN1 biology and developmental signaling mechanisms.

AXIN1 is best known as a core component of the beta-catenin destruction complex, where it interacts with proteins including APC, GSK3, and beta-catenin to regulate pathway activity. In the absence of Wnt stimulation, AXIN1 promotes beta-catenin degradation and suppresses activation of Wnt-responsive genes. Following Wnt pathway activation, this regulatory process is altered, allowing beta-catenin accumulation and transcriptional activation of genes involved in development, growth, and cell fate determination. Because AXIN1 occupies a central position within this signaling network, it remains one of the most widely studied regulators of Wnt pathway activity.

During vertebrate embryogenesis, AXIN1 contributes to body axis formation, tissue specification, organogenesis, and developmental patterning. Proper regulation of AXIN1 activity is required for normal morphogenesis and differentiation of multiple cell lineages. Researchers frequently evaluate AXIN1 expression when investigating embryonic development, regenerative biology, developmental genetics, and signal transduction pathways. Its role as a signaling scaffold makes AXIN1 particularly valuable for studies examining how cells integrate and coordinate developmental signals.

Zebrafish provide unique advantages for studying Wnt signaling because developmental processes can be directly observed throughout embryogenesis and early growth stages. Investigators commonly monitor AXIN1 expression during studies of embryonic patterning, regeneration, stem cell regulation, developmental toxicology, and tissue morphogenesis. Because Wnt signaling pathways are highly conserved between zebrafish and mammals, findings generated using zebrafish models often provide valuable insight into vertebrate developmental biology and signaling pathway regulation.

At NSJ Bioreagents, we provide highly validated antibodies for developmental biology, signal transduction research, stem cell biology, and zebrafish research. Zebrafish AXIN1 Antibody / Axis Inhibition Protein 1 Antibody targets a key regulator of Wnt signaling and beta-catenin pathway control. AXIN1 expression is widely studied in the context of developmental signaling, embryonic patterning, tissue specification, regenerative biology, and vertebrate development. Continued investigation of AXIN1 is expanding our understanding of the molecular mechanisms that govern cellular differentiation, developmental organization, and signal transduction.

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.

This Zebrafish antibody is part of a broader Zebrafish / Danio rerio antibody panel offered by NSJ Bioreagents.

Application Notes

The optimal working dilution of the Zebrafish AXIN1 Antibody / Axis Inhibition Protein 1 Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish AXIN1 recombinant protein (amino acids E91-D835) was used as the immunogen for the Zebrafish AXIN1 Antibody.

Storage

After reconstitution, the Zebrafish 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.

Alternate Names

Zebrafish Axis Inhibition Protein 1 Antibody, Zebrafish Axin 1 Antibody, Zebrafish Beta-Catenin Regulatory Protein

Antibody, Zebrafish Wnt Signaling Protein Antibody, Zebrafish Signal Transduction Scaffold Protein Antibody, Zebrafish Developmental Signaling Regulator Antibody

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