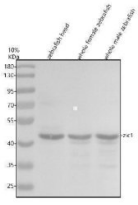
Zebrafish ZIC1 Antibody / Zinc Finger Protein of the Cerebellum 1 Antibody (RZ1361)

Catalog No.	Formulation	Size
RZ1361	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	O93311
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish ZIC1 Antibody / Zinc Finger Protein of the Cerebellum 1 Antibody is available for research use only.



Zebrafish ZIC1 / Zinc Finger Protein of the Cerebellum 1 Antibody Neurodevelopment WB. Western blot analysis of zebrafish head tissue, whole female zebrafish, and whole male zebrafish lysates using Zebrafish ZIC1 Antibody demonstrates a prominent immunoreactive band at approximately 45 kDa, consistent with the predicted molecular weight of Zinc Finger Protein of the Cerebellum 1 (ZIC1). ZIC1 is a zinc finger transcription factor that functions as a key regulator of neurogenesis, neural patterning, cerebellar development, and embryonic tissue specification. The observed expression across multiple zebrafish tissue preparations is consistent with the broad developmental role of ZIC1 in regulating gene expression programs that govern nervous system formation and vertebrate embryogenesis. Minor lower molecular weight immunoreactive bands are also present and may represent degradation products, alternatively processed species, or non-specific antibody-reactive proteins. 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 ZIC1 Antibody / Zinc Finger Protein of the Cerebellum 1 Antibody recognizes ZIC1, a zinc finger transcription factor that plays a critical role in nervous system development, neural patterning, and cellular differentiation during embryogenesis. ZIC1 belongs to the ZIC family of developmental regulators that control gene expression programs required for formation of the central nervous system and other embryonic structures. Through its activity as a DNA-binding transcription factor, ZIC1 influences neurogenesis, neural crest development, cerebellar formation, and tissue patterning events that are essential for normal vertebrate development. The highly conserved nature of ZIC family proteins has established zebrafish as an important model for investigating ZIC1 function and developmental regulation.

ZIC1 is particularly important during early embryonic development where it contributes to neural tube patterning, specification of neuronal populations, and organization of developing brain structures. Expression of ZIC1 is frequently examined in studies investigating neurodevelopment, nervous system formation, and embryonic patterning. Because transcription factors serve as master regulators of developmental gene expression, ZIC1 remains an important marker of developmental signaling pathways that control tissue specification and morphogenesis.

Beyond its role in neural development, ZIC1 contributes to regulation of cell fate determination, proliferation, differentiation, and maintenance of developmental programs. Altered expression of ZIC family proteins has been associated with developmental abnormalities and defects in nervous system formation. Researchers commonly evaluate ZIC1 expression during studies of neurogenesis, neural crest biology, developmental genetics, and vertebrate embryology. As a result, ZIC1 remains an important target in developmental biology and neuroscience research.

Zebrafish provide unique advantages for studying developmental transcription factors because embryonic development can be observed directly and manipulated experimentally throughout early life stages. Investigators frequently monitor ZIC1 expression during studies of brain development, neural differentiation, regeneration, and developmental toxicology. Because many developmental regulatory pathways are highly conserved between zebrafish and mammals, findings generated using zebrafish models often provide valuable insight into vertebrate nervous system development and developmental disease mechanisms.

At NSJ Bioreagents, we provide highly validated antibodies for developmental biology, neuroscience, and zebrafish research. Zebrafish ZIC1 Antibody / Zinc Finger Protein of the Cerebellum 1 Antibody targets a key developmental transcription factor involved in neurogenesis and nervous system patterning. ZIC1 expression is widely studied in the context of neural development, cerebellar formation, embryonic patterning, developmental regulation, and vertebrate neurobiology. Continued investigation of this important transcription factor is expanding our understanding of the molecular mechanisms that govern nervous system development and tissue specification.

Explore our ZIC1 Antibody / Neural Development Transcription Factor Antibody page for additional validation data and applications involving neurogenesis, neural patterning, and nervous system development.

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 ZIC1 Antibody / Zinc Finger Protein of the Cerebellum 1 Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish ZIC1 recombinant protein (amino acids M1-Y192) was used as the immunogen for the Zebrafish ZIC1 Antibody.

Storage

After reconstitution, the Zebrafish ZIC1 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 Zinc Finger Protein of the Cerebellum 1 Antibody, Zebrafish Zic Family Transcription Factor Antibody, Zebrafish Neural Development Transcription Factor Antibody, Zebrafish Cerebellar Development Protein Antibody, Zebrafish Neurogenesis Regulatory Protein Antibody, Zebrafish Developmental Transcription Factor Antibody