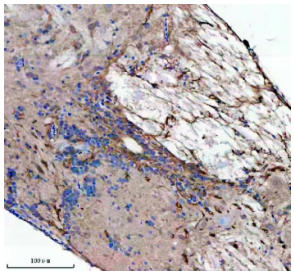
Zebrafish Lzic Antibody / Leucine zipper and ICAT homologous domain-containing protein (RZ1084)

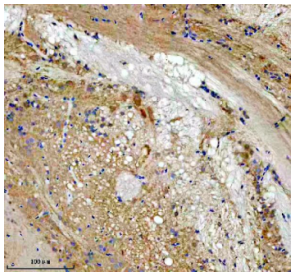
Catalog No.	Formulation	Size
RZ1084	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q6DHH7
Applications	Immunohistochemistry (FFPE) : 2-5 ug/ml
Limitations	This Zebrafish Lzic antibody is available for research use only.



Immunohistochemical analysis of Lzic protein using Zebrafish Lzic antibody and paraffin-embedded spinal cord tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Immunohistochemical analysis of Lzic protein using Zebrafish Lzic antibody and paraffin-embedded zebrafish brain tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Zebrafish (Danio rerio) Lzic antibody recognizes Leucine zipper and ICAT homologous domain containing protein, a conserved cytoplasmic and nuclear regulatory factor involved in transcriptional control, Wnt signaling modulation, and cell cycle progression. In zebrafish, lzic is expressed broadly during early embryogenesis, with enriched localization in developing neural tissues, somites, and regions undergoing active morphogenesis. The protein contains a characteristic leucine zipper motif and an ICAT homologous domain that enable interactions with transcriptional regulators and structural proteins. Its dual cytoplasmic and nuclear localization supports roles in both gene expression and signaling network coordination, making Leucine zipper and ICAT homologous domain containing protein antibody reagents valuable tools for developmental studies.

Functionally, Lzic participates in pathways that regulate cellular differentiation, particularly within the nervous system. Studies have shown that loss of lzic function can disrupt neuronal patterning, alter cell fate decisions, and impair coordinated growth of early tissues. The protein may act as a modulator of Wnt beta catenin signaling by interacting with regulators of transcriptional complexes, thereby influencing gene sets required for morphogenesis. Its leucine zipper structure facilitates dimerization or partner binding, while the ICAT related domain suggests potential competition or cooperation with other signaling mediators, adding complexity to its developmental roles.

Expression data in zebrafish indicate that lzic transcripts are present during segmentation and neural plate formation, with protein localization in both the nucleus and cytoplasm of differentiating cells. This pattern aligns with its proposed involvement in transcriptional repression or activation depending on developmental context. The protein is also implicated in regulation of spindle orientation and cytoskeletal dynamics, functions shared with other leucine zipper containing regulators that help coordinate cell shape transitions during embryogenesis. Co localization partners include transcriptional repressors, beta catenin associated proteins, and cytoskeletal elements involved in structural organization.

Lzic belongs to a conserved gene family found across vertebrates, with the zebrafish ortholog maintaining structural domains present in mammalian LZIC proteins. Its involvement in neural development has made it a useful marker for studying brain patterning, neuronal differentiation, and sensory system formation. Additionally, emerging research suggests ties to stress response pathways and metabolic control, reflecting a broader role in maintaining tissue homeostasis during growth. The zebrafish model provides an ideal platform for dissecting these functions due to its transparent embryos, rapid development, and tractable genetics.

The Zebrafish Lzic antibody can be applied in research assays such as immunohistochemistry, western blotting, and related detection workflows aimed at mapping Lzic distribution across developmental stages. As with other regulatory proteins lacking well defined domains for epitope prediction, this reagent is described simply as recognizing Lzic without implying any literature validated epitope or clone specificity. NSJ Bioreagents provides the Zebrafish Lzic antibody to support investigations in neural development, Wnt pathway regulation, and transcriptional control mechanisms in vertebrate embryogenesis.

Application Notes

Optimal dilution of the Zebrafish Lzic antibody should be determined by the researcher.

Immunogen

An E.coli-derived zebrafish Lzic recombinant protein (amino acids N67-K187) was used as the immunogen for the Zebrafish Lzic antibody.

Storage

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