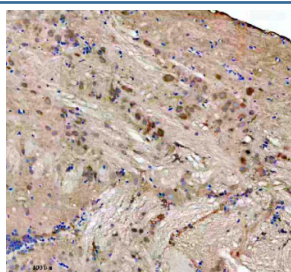


Zebrafish Fhl2 Antibody / Fhl2a / Fhl2b (RZ1133)

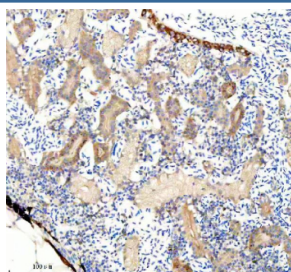
Catalog No.	Formulation	Size
RZ1133	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

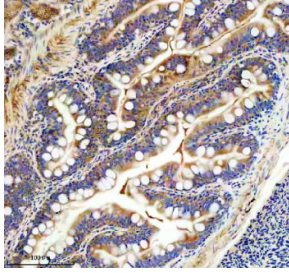
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q6AZB7
Localization	Cytoplasmic, Nuclear
Applications	Immunohistochemistry (FFPE) : 2-5 ug/ml Immunofluorescence : 5 ug/ml
Limitations	This Zebrafish Fhl2 antibody is available for research use only.



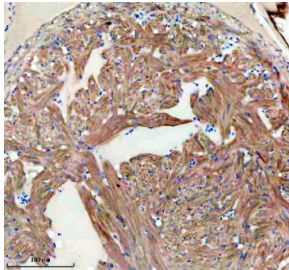
Zebrafish Fhl2 Antibody Brain IHC. Immunohistochemical analysis of FHL2a/b protein using Zebrafish Fhl2 antibody, HRP secondary and DAB substrate with paraffin-embedded zebrafish brain tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



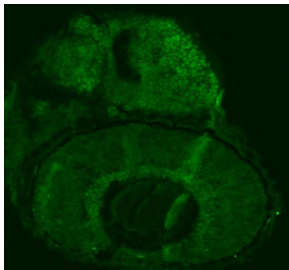
Zebrafish Fhl2 Antibody Kidney IHC. Immunohistochemical analysis of FHL2a/b protein using Zebrafish Fhl2 antibody, HRP secondary and DAB substrate with paraffin-embedded zebrafish kidney tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



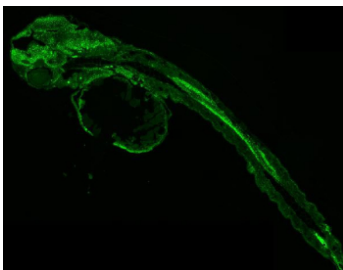
Zebrafish Fhl2 Antibody Colon IHC. Immunohistochemical analysis of FHL2a/b protein using Zebrafish Fhl2 antibody, HRP secondary and DAB substrate with paraffin-embedded zebrafish colon tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



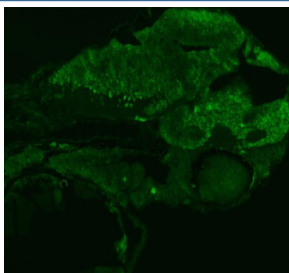
Zebrafish Fhl2 Antibody Heart IHC. Immunohistochemical analysis of FHL2a/b protein using Zebrafish Fhl2 antibody, HRP secondary and DAB substrate with paraffin-embedded zebrafish heart tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Fhl2 Antibody Embryo IF - Cytoplasmic Localization. Immunofluorescent staining of FFPE zebrafish embryo tissue with Zebrafish Fhl2 antibody (green). HIER: steam section in pH8 EDTA buffer for 20 min.



Zebrafish Fhl2 Antibody Embryo IF - Early Development Expression. Immunofluorescent staining of FFPE zebrafish embryo tissue with Zebrafish Fhl2 antibody (green). HIER: steam section in pH8 EDTA buffer for 20 min.



Zebrafish Fhl2 Antibody Embryo IF - Cytoskeletal Signaling Protein. Immunofluorescent staining of FFPE zebrafish embryo tissue with Zebrafish Fhl2 antibody (green). HIER: steam section in pH8 EDTA buffer for 20 min.

Description

Zebrafish (*Danio rerio*) Fhl2 antibody detects Fhl2, a LIM-domain-containing adaptor protein involved in transcriptional regulation, cytoskeletal organization, and signal integration. In zebrafish, the *fhl2* gene is represented by two paralogs, *fhl2a* and *fhl2b*, which encode closely related proteins sharing the characteristic four-and-a-half LIM domains that mediate protein-protein interactions. These domains enable Fhl2 proteins to act as molecular scaffolds, linking transcription factors, kinases, cytoskeletal regulators, and membrane-associated complexes. Because LIM-domain adaptors shape cellular mechanics and gene expression programs, Zebrafish Fhl2 antibody reagents are widely used in studies of muscle development, cardiac function, and mechanotransduction.

During zebrafish embryogenesis, fhl2a and fhl2b are prominently expressed in skeletal muscle, cardiomyocytes, the notochord, and additional mesoderm-derived tissues. These expression patterns reflect Fhl2's established roles in regulating myogenesis, sarcomere assembly, and contractile protein expression. In vertebrate systems, FHL2 modulates the activity of transcription factors such as MyoD, MEF2, SRF, and beta-catenin, linking mechanical or cytoskeletal signals with transcriptional outcomes. Zebrafish studies indicate that both Fhl2a and Fhl2b contribute to similar regulatory pathways, influencing muscle fiber maturation, cardiac chamber development, and the structural integrity of developing tissues.

Fhl2 also participates in signal transduction pathways that respond to mechanical stress, growth factors, and extracellular matrix cues. Through its LIM domains, Fhl2 interacts with integrins, focal adhesion proteins, and small Rho-family GTPases, enabling cells to sense mechanical forces and translate them into gene expression changes. In zebrafish, these mechanotransductive processes are essential for shaping cardiac morphogenesis, muscle alignment, and tissue tension during embryonic movement.

Beyond muscle and cardiac roles, Fhl2 influences cell proliferation, migration, and differentiation across multiple tissue types. It participates in Wnt and MAPK signaling pathways and helps modulate the balance between stem cell maintenance and lineage commitment. During zebrafish development, these regulatory mechanisms support patterning of the craniofacial skeleton, fin mesenchyme, and additional structures requiring coordinated signaling input.

At the molecular level, Fhl2 proteins act as coactivators or corepressors depending on the transcriptional context. Their ability to bind multiple partners simultaneously enables the formation of regulatory hubs that coordinate cytoskeletal dynamics with nuclear responses. Localization studies in vertebrates show that FHL2 can shuttle between the cytoplasm, cell membrane, and nucleus, reflecting its multifunctional regulatory capacity. Zebrafish Fhl2a and Fhl2b likely exhibit similar dynamics, contributing to both structural and signaling roles across developing tissues.

A Zebrafish Fhl2 antibody is suitable for research applications such as western blotting, immunohistochemistry, and assays examining muscle development, mechanotransduction, transcriptional regulation, and cytoskeletal organization. This antibody targets Fhl2 for studies involving myogenesis, cardiac physiology, and vertebrate developmental biology. NSJ Bioreagents provides the Zebrafish Fhl2 antibody to support research in structural biology and developmental regulation.

This Zebrafish antibody is part of a [broader Zebrafish / Danio rerio antibody panel](#) offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Zebrafish Fhl2 antibody should be determined by the researcher.

Immunogen

An E.coli-derived zebrafish Fhl2 recombinant protein (amino acids K235-I279) was used as the immunogen for the Zebrafish Fhl2 antibody. This antibody will detect the a and b isoforms.

Storage

After reconstitution, the Zebrafish Fhl2 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.

