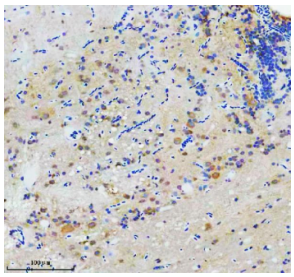
Zebrafish Flotillin Antibody / Flot1a (RZ1081)

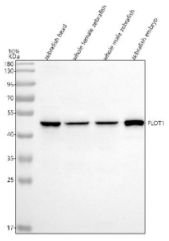
Catalog No.	Formulation	Size
RZ1081	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

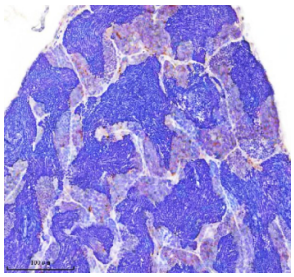
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	F1QEW4
Applications	Western blot: 0.5-1 ug/ml Immunohistochemistry (FFPE): 2-5 ug/ml
Limitations	This Zebrafish Flotillin antibody is available for research use only.



Zebrafish Flotillin Antibody Brain IHC. Immunohistochemistry staining of FFPE zebrafish brain tissue with Zebrafish Flotillin antibody, HRP secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Flotillin Antibody WB. Western blot analysis of Flotillin/FLOT1a protein using Zebrafish Flotillin antibody and 1) zebrafish head, 2) whole female zebrafish, 3) whole male zebrafish and 4) zebrafish embryo tissue lysate. Predicted molecular weight ~47 kDa.



Zebrafish Flotillin Antibody Testis IHC. Immunohistochemistry staining of FFPE zebrafish testis tissue with Zebrafish Flotillin antibody, HRP secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Zebrafish (Danio rerio) Flotillin antibody recognizes Flotillin 1a, a membrane-associated scaffolding protein encoded by the zebrafish flot1a gene. Flotillins are highly conserved components of lipid raft microdomains, where they regulate membrane organization, endocytosis, signaling complex assembly, and cytoskeletal interactions. In Danio rerio embryos, flot1a is broadly expressed across proliferative and differentiating tissues, including brain, neural tube, somites, heart, vasculature, and endoderm-derived organs such as liver and intestine. Subcellular localization is enriched at the plasma membrane, particularly within detergent-resistant membrane fractions associated with raft-mediated signaling and vesicle dynamics.

Flotillin 1a functions as a structural organizer of membrane microdomains that coordinate signaling events essential for embryonic development. By interacting with receptors, kinases, cytoskeletal components, and adaptor proteins, Flot1a helps regulate endocytosis, cell adhesion, and spatial compartmentalization of signaling pathways. These processes ensure proper responsiveness to growth factors, morphogens, and mechanical cues during rapid tissue patterning. Flotillins also contribute to vesicle budding and trafficking, influencing how cells internalize and respond to environmental information.

Neural development relies heavily on membrane microdomain organization, making Flot1a essential in the developing nervous system. Neural progenitors require raft-associated signaling to regulate proliferation, neuroepithelial polarity, and differentiation. In differentiating neurons, Flot1a influences axonal membrane composition, growth cone behavior, and synaptic formation. Raft-mediated clustering of receptors and cytoskeletal regulators helps guide neuronal patterning and connectivity. Disruption of flotillin function can impair axon guidance, alter signaling gradients, or compromise neural circuit assembly.

Somite and skeletal muscle development also depend on Flot1a-mediated membrane organization. Myogenic progenitors require coordinated cytoskeletal remodeling and adhesion signaling as they transition from segmentation to myotome formation. Flot1a supports membrane-cytoskeleton interactions that influence cell shape, alignment, and early contractile architecture. These roles help ensure proper muscle fiber formation and structural stability.

Cardiac and vascular development involve extensive membrane reorganization and mechanosensitive signaling, processes in which Flot1a participates. In cardiomyocytes, raft-associated proteins influence contractility, calcium handling, and mechanical signaling pathways that shape chamber morphogenesis. Endothelial cells rely on lipid rafts to coordinate angiogenic sprouting, lumen formation, and barrier stability. By supporting signal compartmentalization, Flot1a contributes to robust vascular patterning and hemodynamic adaptation.

Endoderm-derived organs such as liver and pancreas depend on membrane-associated signaling and trafficking events regulated by Flot1a. Developing hepatocytes and pancreatic cells require controlled endocytosis, metabolic signaling, and stress-response pathways that rely on raft organization. Flot1a helps maintain cellular responsiveness during transitions between proliferation, differentiation, and metabolic maturation.

This Zebrafish Flotillin antibody is suitable for detecting Flotillin 1a in research focused on membrane microdomains, neural development, muscle formation, cardiac and vascular biology, and endodermal organogenesis in zebrafish. NSJ Bioreagents provides this reagent within its zebrafish and membrane-signaling antibody portfolio.

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

FLOT1 Antibody detects the Reggie 2 protein involved in membrane organization, vesicle trafficking and cell signaling; additional lipid raft research tools are available on our Flotillin 1 Antibody / Lipid Raft Marker Antibody page.

Application Notes

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

Immunogen

An E.coli-derived zebrafish Flotillin/FLOT1a recombinant protein (amino acids E95-L411) was used as the immunogen for the Zebrafish Flotillin antibody.

Storage

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

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