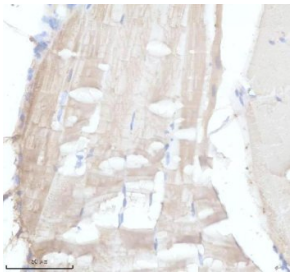
Zebrafish MYL7 Antibody / Myosin Light Chain 7 Antibody (RZ1390)

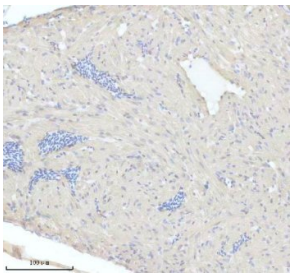
Catalog No.	Formulation	Size
RZ1390	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

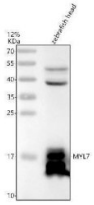
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/mL.
UniProt	Q801M3
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish MYL7 Antibody / Myosin Light Chain 7 Antibody is available for research use only.



Zebrafish MYL7 Antibody Muscle IHC. Immunohistochemical staining of paraffin-embedded zebrafish muscle tissue using Zebrafish MYL7 Antibody / Myosin Light Chain 7 Antibody demonstrates diffuse HRP-DAB brown staining throughout striated muscle fibers. The staining pattern is consistent with expression of MYL7, a myosin light chain family member involved in regulation of actomyosin interactions and muscle contractility. MYL7 is an important component of the contractile apparatus and is widely used as a marker of cardiac muscle differentiation and myocardial development in zebrafish. The observed fiber-associated staining is consistent with localization of myosin-associated proteins within organized contractile structures and supports the role of MYL7 in muscle function and sarcomere organization. Heat-mediated antigen retrieval was performed in EDTA buffer prior to overnight primary antibody incubation and HRP-DAB visualization.



Zebrafish MYL7 Antibody Cardiac Muscle IHC. Immunohistochemical staining of paraffin-embedded zebrafish heart tissue using Zebrafish MYL7 Antibody / Myosin Light Chain 7 Antibody demonstrates low-level cytoplasmic HRP-DAB brown staining within cardiac muscle tissue. MYL7 is a myosin light chain family member that functions within the cardiac contractile apparatus and contributes to regulation of actomyosin interactions, sarcomere organization, and myocardial contraction. In zebrafish, MYL7 is widely used as a marker of cardiomyocyte differentiation and heart development due to its association with developing and mature cardiac muscle cells. The observed staining pattern is consistent with expression of a contractile protein involved in cardiac muscle structure and function. Heat-mediated antigen retrieval was performed in EDTA buffer prior to overnight primary antibody incubation and HRP-DAB visualization.



Zebrafish MYL7 Antibody WB. Western blot analysis of zebrafish head tissue lysate using Zebrafish MYL7 Antibody / Myosin Light Chain 7 Antibody demonstrates a prominent band at approximately 17 kDa, consistent with the expected molecular weight of MYL7. Myosin Light Chain 7 (MYL7) is a contractile protein that forms part of the myosin motor complex and contributes to regulation of actomyosin interactions, sarcomere organization, and muscle contraction. In zebrafish, MYL7 is widely recognized as a marker of cardiac muscle differentiation and heart development, reflecting its association with cardiomyocyte function and myocardial maturation. The observed band confirms detection of MYL7 and supports the utility of this antibody for studies of cardiac development, muscle biology, and contractile protein expression. Additional faint higher molecular weight bands may represent myosin-associated protein complexes, post-translationally modified protein species, or other factors influencing electrophoretic migration. Electrophoresis was performed on a 12% SDS-PAGE gel under reducing conditions with 30 Âµg of protein loaded per lane, followed by nitrocellulose transfer and HRP-ECL detection.

Description

Zebrafish MYL7 Antibody / Myosin Light Chain 7 Antibody is useful for studying Myosin Light Chain 7 (MYL7), a contractile protein that forms part of the myosin motor complex in cardiac muscle cells. MYL7 belongs to the myosin light chain family and contributes to regulation of actomyosin interactions that drive muscle contraction. Through its association with cardiac myosin complexes, MYL7 plays an important role in myocardial function, cardiac contractility, and heart development.

MYL7 is predominantly associated with cardiomyocytes and developing cardiac tissues, where it contributes to sarcomere organization and contractile apparatus assembly. Proper formation and function of the cardiac contractile machinery are essential for normal heart morphogenesis and physiologic blood circulation. As a result, MYL7 serves as an important marker of cardiac muscle differentiation and myocardial development during embryogenesis.

In zebrafish, MYL7 expression is closely linked to developing heart structures and differentiated cardiac muscle cells. Because zebrafish embryos are optically transparent and undergo rapid cardiovascular development, MYL7 has become a widely utilized marker for investigating heart formation, chamber development, myocardial organization, and cardiac function. Analysis of MYL7 expression can provide insight into mechanisms that regulate cardiomyocyte specification, cardiac morphogenesis, and vertebrate cardiovascular development.

The zebrafish model has become an important system for studying heart biology because many molecular pathways controlling cardiac development are highly conserved among vertebrates. Investigators frequently utilize cardiac markers such as MYL7 to visualize developing myocardium, evaluate cardiac structure, and examine pathways involved in cardiac differentiation and contractile function. These studies contribute to a broader understanding of cardiovascular development and muscle biology.

Beyond its role as a structural component of the cardiac contractile apparatus, MYL7 is useful for identifying cardiac muscle populations and monitoring myocardial maturation. Because expression is strongly associated with differentiated cardiomyocytes, MYL7 serves as a valuable research marker for studies of cardiac lineage commitment, heart development, and cardiovascular physiology.

Zebrafish MYL7 antibodies are commonly used in immunohistochemistry, immunofluorescence, western blotting, and related protein detection applications to evaluate cardiac muscle development and myocardial protein expression. These reagents support investigations of cardiomyocyte differentiation, sarcomere assembly, cardiac morphogenesis, heart function, muscle biology, and vertebrate cardiovascular 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 MYL7 Antibody / Myosin Light Chain 7 Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish MYL7 recombinant protein (amino acids M1-S172) was used as the immunogen for the Zebrafish MYL7 Antibody.

Storage

After reconstitution, the Zebrafish MYL7 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 Myosin Light Chain 7 Antibody, Zebrafish Cardiac Myosin Light Chain Antibody, Zebrafish Atrial Light Chain Antibody, Zebrafish Ventricular Myosin Light Chain Antibody, Zebrafish Cardiac Muscle Marker Antibody, Zebrafish MLC7 Antibody

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