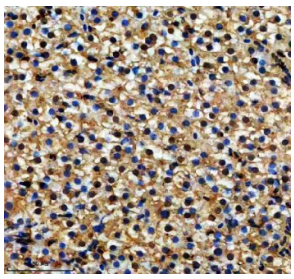
Zebrafish DMPK Antibody / Myotonic Dystrophy Protein Kinase Antibody (RZ1422)

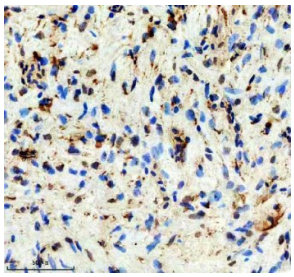
Catalog No.	Formulation	Size
RZ1422	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

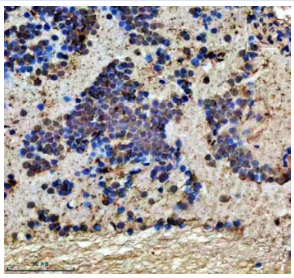
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/mL.
UniProt	A0A8M3B300
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish DMPK Antibody / Myotonic Dystrophy Protein Kinase Antibody is available for research use only.



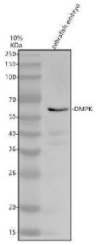
Zebrafish DMPK Antibody Liver IHC. Immunohistochemical analysis of paraffin-embedded zebrafish liver tissue using Zebrafish DMPK Antibody / Myotonic Dystrophy Protein Kinase Antibody demonstrates widespread cytoplasmic staining throughout hepatocellular populations. DMPK is a serine/threonine protein kinase involved in cytoskeletal organization, intracellular signaling, and muscle-associated cellular regulatory pathways. The observed staining pattern is consistent with endogenous DMPK expression and supports the utility of this antibody for immunohistochemical detection of DMPK in zebrafish tissues. Heat-mediated antigen retrieval was performed in EDTA buffer. The tissue section was blocked with 10% goat serum and incubated overnight at 4Â°C with rabbit anti-DMPK antibody (2 ug/ml). Detection was performed using a peroxidase-conjugated goat anti-rabbit IgG secondary antibody followed by DAB chromogen development.



Zebrafish DMPK Antibody Heart IHC. Immunohistochemical analysis of paraffin-embedded zebrafish heart tissue using Zebrafish DMPK Antibody / Myotonic Dystrophy Protein Kinase Antibody demonstrates cytoplasmic staining within cardiomyocytes and associated cardiac tissue structures. DMPK is a serine/threonine protein kinase involved in muscle function, cytoskeletal regulation, and intracellular signaling pathways that contribute to normal cardiac and skeletal muscle physiology. The observed staining pattern is consistent with endogenous DMPK expression and supports the utility of this antibody for immunohistochemical detection of DMPK in zebrafish tissues. Heat-mediated antigen retrieval was performed in EDTA buffer. The tissue section was blocked with 10% goat serum and incubated overnight at 4Â°C with rabbit anti-DMPK antibody (2 ug/ml). Detection was performed using a peroxidase-conjugated goat anti-rabbit IgG secondary antibody followed by DAB chromogen development.



Zebrafish DMPK Antibody Brain IHC. Immunohistochemical analysis of paraffin-embedded zebrafish brain tissue using Zebrafish DMPK Antibody / Myotonic Dystrophy Protein Kinase Antibody demonstrates cytoplasmic staining within neuronal and neuropil-rich regions. DMPK is a serine/threonine protein kinase involved in cytoskeletal organization, intracellular signaling, and the regulation of cellular architecture in muscle and neural tissues. The observed staining pattern is consistent with endogenous DMPK expression and supports the utility of this antibody for immunohistochemical detection of DMPK in zebrafish tissues. Heat-mediated antigen retrieval was performed in EDTA buffer. The tissue section was blocked with 10% goat serum and incubated overnight at 4Â°C with rabbit anti-DMPK antibody (2 ug/ml). Detection was performed using a peroxidase-conjugated goat anti-rabbit IgG secondary antibody followed by DAB chromogen development.



Zebrafish DMPK Antibody Embryo WB. Western blot analysis of zebrafish embryo tissue lysate using Zebrafish DMPK Antibody / Myotonic Dystrophy Protein Kinase Antibody demonstrates a distinct immunoreactive band at approximately 67 kDa, consistent with the expected molecular weight of DMPK. DMPK is a serine/threonine protein kinase involved in muscle development, cytoskeletal organization, and intracellular signaling pathways that regulate cellular architecture and contractile tissue function. The observed banding pattern is consistent with endogenous DMPK expression in zebrafish embryonic tissue and supports the utility of this antibody for western blot detection of DMPK.

Description

Zebrafish DMPK Antibody / Myotonic Dystrophy Protein Kinase Antibody recognizes DMPK, a serine/threonine protein kinase that plays important roles in muscle structure, cellular signaling, and cytoskeletal organization. DMPK is best known as the gene associated with myotonic dystrophy type 1 in humans, where expansion mutations within the DMPK locus result in a multisystem neuromuscular disorder. The encoded kinase participates in signaling pathways that regulate muscle cell function, membrane stability, intracellular trafficking, and cellular architecture. Because many aspects of DMPK biology are conserved among vertebrates, zebrafish serves as a valuable model for investigating the developmental and physiological functions of this kinase.

DMPK is highly expressed in skeletal and cardiac muscle tissues, where it contributes to maintenance of normal muscle integrity and contractile function. The protein localizes to intracellular membrane compartments and cytoskeletal structures that help coordinate cellular organization and signaling. Experimental studies have demonstrated that DMPK influences actin cytoskeleton dynamics, ion homeostasis, vesicle trafficking, and communication between intracellular organelles. These activities are essential for maintaining normal muscle performance and tissue architecture during development and throughout adult life.

During embryonic development, DMPK expression is associated with differentiating muscle tissues and other structures requiring coordinated cellular organization. The kinase contributes to pathways that regulate cell shape, migration, and

structural maturation. Because zebrafish embryos undergo rapid muscle formation and are highly amenable to imaging and genetic manipulation, DMPK expression can provide valuable insight into vertebrate muscle development and neuromuscular biology. The conservation of DMPK-associated pathways also makes zebrafish a useful system for studying disease-related mechanisms relevant to human muscular disorders.

Beyond its role in muscle biology, DMPK has been implicated in cellular stress responses, signal transduction, and regulation of intracellular transport processes. Altered DMPK function may affect multiple tissues through disruption of cytoskeletal organization and cellular communication networks. Consequently, DMPK remains an important target for investigations into muscular disease mechanisms, developmental biology, and kinase-mediated signaling pathways.

Zebrafish DMPK Antibody is useful for studying muscle development, skeletal muscle biology, cardiac tissue function, intracellular signaling, and cytoskeletal regulation in zebrafish models. Applications include western blotting, immunohistochemistry, immunofluorescence, and other immunodetection methods used to evaluate DMPK expression and localization in developing and adult tissues.

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 DMPK Antibody / Myotonic Dystrophy Protein Kinase Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish DMPK recombinant protein (amino acids K53-S577) was used as the immunogen for the Zebrafish DMPK Antibody.

Storage

After reconstitution, the Zebrafish DMPK 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 DMPK Antibody, Zebrafish Myotonic Dystrophy Protein Kinase Antibody, Zebrafish Dystrophia Myotonica Protein Kinase Antibody, Zebrafish Serine/Threonine Protein Kinase DMPK Antibody, Zebrafish DM Protein Kinase Antibody, Zebrafish DMPK Kinase Antibody

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