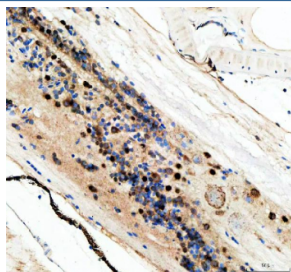


Zebrafish Dhx9 Antibody / RNA Helicase / RHA (RZ1074)

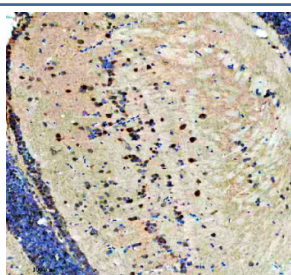
Catalog No.	Formulation	Size
RZ1074	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

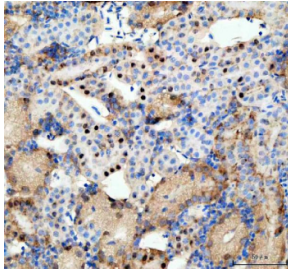
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	A0A8M3AQB4
Applications	Immunohistochemistry (FFPE) : 2-5 ug/ml Immunofluorescence : 5 ug/ml
Limitations	This Zebrafish Dhx9 antibody is available for research use only.



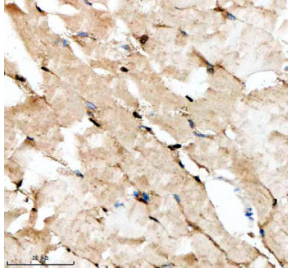
Zebrafish Dhx9 Antibody Eye IHC. Immunohistochemical analysis of Dhx9 protein using Zebrafish Dhx9 antibody and paraffin-embedded zebrafish eye tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



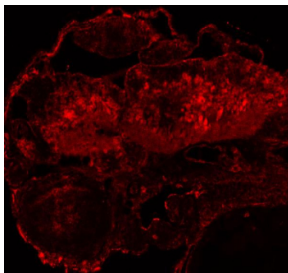
Zebrafish Dhx9 Antibody Brain IHC. Immunohistochemical analysis of Dhx9 protein using Zebrafish Dhx9 antibody and paraffin-embedded zebrafish brain tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Dhx9 Antibody Kidney IHC. Immunohistochemical analysis of Dhx9 protein using Zebrafish Dhx9 antibody and paraffin-embedded zebrafish kidney tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Dhx9 Antibody Muscle IHC. Immunohistochemical analysis of Dhx9 protein using Zebrafish Dhx9 antibody and paraffin-embedded zebrafish muscle tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Dhx9 Antibody Embryo IF. Immunofluorescent staining of FFPE zebrafish embryo tissue with Dhx9 antibody (red). HIER: steam section in pH8 EDTA buffer for 20 min.

Description

Zebrafish (*Danio rerio*) Dhx9 antibody recognizes the RNA helicase Dhx9, also known as RHA, a conserved ATP-dependent helicase encoded by the zebrafish *dhx9* gene. Dhx9 performs essential functions in RNA metabolism, including unwinding structured RNA, facilitating transcription, supporting RNA processing, and participating in DNA repair and genome surveillance. In *Danio rerio* embryos, *dhx9* is expressed widely from early developmental stages and is enriched in proliferative tissues such as brain, neural tube, somites, notochord, heart, vasculature, and endoderm-derived organs including liver and pancreas. Subcellular localization includes nucleus, nucleolus, and cytoplasm, reflecting its involvement in both RNA and DNA-associated processes.

RNA helicase Dhx9 is a multifunctional regulatory enzyme that influences transcriptional initiation, RNA polymerase activity, ribonucleoprotein assembly, and RNA trafficking. Dhx9 binds structured RNAs, participates in R-loop resolution, and supports processing of pre-mRNAs, long noncoding RNAs, and regulatory transcripts. These functions are essential for maintaining RNA quality, preventing transcriptional stress, and coordinating gene expression during rapid developmental transitions. Zebrafish embryos rely on Dhx9 to maintain genome stability and regulate key transcriptional programs as cells proliferate and differentiate across multiple tissue lineages.

Neural development depends heavily on Dhx9 function. Neural progenitors in the brain and spinal cord require efficient RNA metabolism and transcriptional regulation to sustain proliferation, regional patterning, and lineage specification. Dhx9 participates in RNA processing pathways that regulate neurogenic transcription factors and structural genes required for neuronal maturation. Its helicase activity contributes to maintaining genome integrity in rapidly dividing neural precursors while also supporting differentiation programs linked to axon growth, synaptic development, and metabolic adaptation. Loss of Dhx9 function can impair neural organization or alter developmental timing.

Somite and muscle development also rely on Dhx9. Myogenic progenitors require coordinated control of RNA stability and transcriptional regulation as they transition between proliferative and differentiating states. Dhx9 supports expression of muscle-specific genes, influences cytoskeletal remodeling, and helps maintain genomic stability during early myotome

formation. Because muscle differentiation involves rapid transcriptional shifts, Dhx9's helicase activity is essential for proper muscle architecture.

Cardiac and vascular development depend on Dhx9-mediated transcription and RNA processing. In the developing heart, Dhx9 regulates expression of genes required for cardiomyocyte proliferation, contractile maturation, and chamber morphogenesis. In endothelial tissues, Dhx9 supports transcriptional programs that guide angiogenic sprouting, cell polarity, and vascular tube formation. Its functions in RNA metabolism and genomic maintenance help endothelial cells respond to mechanical forces and stress signals during vascular remodeling.

Endoderm-derived organs, particularly liver and pancreas, undergo extensive transcriptional and metabolic changes that require robust RNA processing. Dhx9 supports expression of regulatory and metabolic genes required for hepatocyte differentiation, endocrine specification, and stress-response adaptation. Zebrafish embryos depend on Dhx9 to maintain RNA and DNA stability during rapid organ growth.

This Zebrafish Dhx9 antibody is suitable for detecting RNA helicase Dhx9/RHA in research focused on RNA metabolism, transcriptional regulation, neural development, muscle formation, cardiac and vascular morphogenesis, and genomic maintenance in zebrafish. NSJ Bioreagents provides this reagent within its zebrafish and RNA-regulation antibody collection.

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

Application Notes

Optimal dilution of the Zebrafish Dhx9 antibody should be determined by the researcher.

Immunogen

An E.coli-derived zebrafish Dhx9 recombinant protein (amino acids Q194-K559) was used as the immunogen for the Zebrafish Dhx9 antibody.

Storage

After reconstitution, the Zebrafish Dhx9 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.