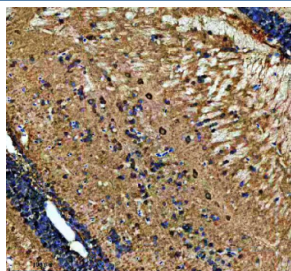


Zebrafish Metap2 Antibody / Methionine aminopeptidase 2 / Isoforms a & b (RZ1042)

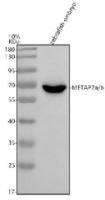
Catalog No.	Formulation	Size
RZ1042	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

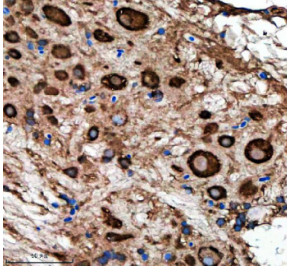
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	A5WVX8, Q7S XK1
Localization	Cytoplasm
Applications	Western Blot : 0.5-1 ug/ml Immunohistochemistry (FFPE) : 2-5 ug/ml
Limitations	This Zebrafish Metap2 antibody is available for research use only.



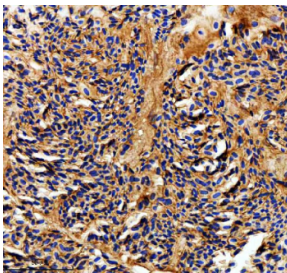
Zebrafish Metap2 Antibody Brain IHC. Immunohistochemical analysis of Metap2a/b protein using Zebrafish Metap2 antibody and paraffin-embedded zebrafish brain tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



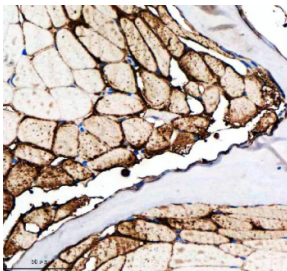
Zebrafish Metap2 Antibody WB. Western blot analysis of Metap2a/b protein using Zebrafish Metap2 antibody and zebrafish embryo tissue lysate. Predicted molecular weight: 50-53 kDa, but may be observed at higher molecular weights due to glycosylation.



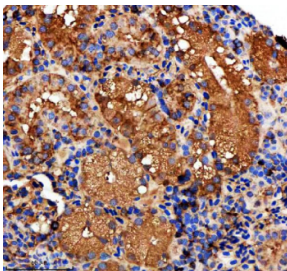
Zebrafish Metap2 Antibody Spinal Cord IHC. Immunohistochemical analysis of Metap2a/b protein using Zebrafish Metap2 antibody and paraffin-embedded zebrafish spinal cord tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



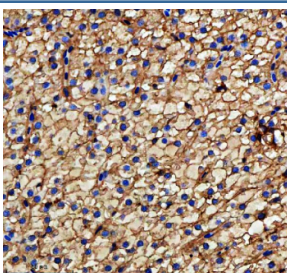
Zebrafish Metap2 Antibody Heart IHC. Immunohistochemical analysis of Metap2a/b protein using Zebrafish Metap2 antibody and paraffin-embedded zebrafish heart tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



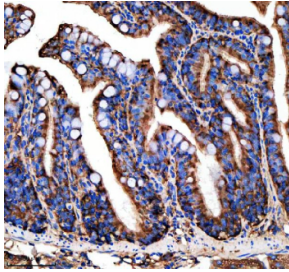
Zebrafish Metap2 Antibody Muscle IHC. Immunohistochemical analysis of Metap2a/b protein using Zebrafish Metap2 antibody and paraffin-embedded zebrafish muscle tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



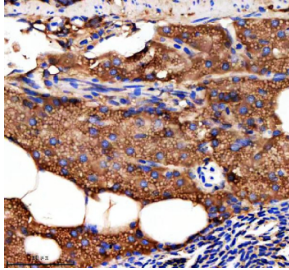
Zebrafish Metap2 Antibody Kidney IHC. Immunohistochemical analysis of Metap2a/b protein using Zebrafish Metap2 antibody and paraffin-embedded zebrafish kidney tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Metap2 Antibody Liver IHC. Immunohistochemical analysis of Metap2a/b protein using Zebrafish Metap2 antibody and paraffin-embedded zebrafish liver tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Metap2 Antibody Colon IHC. Immunohistochemical analysis of Metap2a/b protein using Zebrafish Metap2 antibody and paraffin-embedded zebrafish colon tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Metap2 Antibody Pancreas IHC. Immunohistochemical analysis of Metap2a/b protein using Zebrafish Metap2 antibody and paraffin-embedded zebrafish pancreas tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Zebrafish (*Danio rerio*) Metap2 antibody recognizes Methionine aminopeptidase 2, detecting both isoforms a and b encoded by the zebrafish metap2 gene. Metap2 is a highly conserved, essential metalloprotease that removes N-terminal methionine residues from nascent polypeptides during early co-translational processing. This catalytic trimming step is required for proper protein maturation, regulation of subsequent N-terminal modifications, and stability of thousands of cellular proteins. In *Danio rerio*, Metap2 is expressed broadly during embryogenesis and is strongly enriched in proliferative tissues, including developing brain, neural tube, somites, heart primordia, vasculature, and rapidly differentiating endodermal organs such as liver and pancreas. Subcellular localization is primarily cytosolic, consistent with its role in ribosome-associated protein processing.

Methionine aminopeptidase 2 governs a rate-limiting step in early translation. By removing the initiator methionine, Metap2 regulates downstream protein modifications such as N-terminal acetylation and influences protein-protein interactions, intracellular targeting, and overall proteome organization. In zebrafish embryos, these functions are essential for rapidly proliferating tissues that require high-volume protein synthesis and tightly regulated proteostasis. Metap2 contributes to neural progenitor expansion, muscle precursor differentiation, and cardiac cell maturation. Isoforms a and b may provide tissue-specific regulation or fine-tuning of co-translational processing activity.

Metap2 also plays important roles in angiogenesis and endothelial biology. In vertebrate systems, Metap2 regulates proteins involved in cytoskeletal remodeling, endothelial migration, and vascular stabilization. Zebrafish vascular development relies heavily on these processes, particularly during intersegmental vessel formation and dorsal aorta maturation. Disruption of Metap2 activity can impair endothelial organization, reduce vessel sprouting, and alter hemodynamic adaptation during early heart and vessel formation.

During neural development, Metap2 influences axonal growth, neuronal differentiation, and neuroepithelial proliferation by enabling correct processing of cytoskeletal proteins, signaling molecules, and transcriptional regulators. Zebrafish studies show that altered N-terminal processing disrupts neurogenesis, neural tube patterning, and axon trajectory formation. Metap2-dependent proteostasis additionally supports stress resilience in neural tissues, which depend on high-fidelity protein synthesis during periods of rapid structural remodeling.

In cardiac and skeletal muscle tissues, Metap2 supports organization of contractile networks, mitochondrial maturation, and metabolic resilience. The enzyme enables proper synthesis and stabilization of metabolic enzymes, structural proteins, and mitochondrial regulators required for early contractile function. Because mitochondrial efficiency and proteome integrity strongly influence muscle and heart development, Metap2 is essential for maintaining coordinated growth of energy-demanding tissues.

Metap2 also participates in stress-response pathways. Under metabolic, oxidative, or environmental stress, proper N-terminal processing ensures rapid replacement of damaged proteins and supports activation of stress-responsive transcriptional networks. Zebrafish embryos, which undergo substantial metabolic and transcriptional transitions, rely on Metap2 for proteome stability and adaptation during fluctuating developmental conditions.

This Zebrafish Metap2 antibody is suitable for detecting Methionine aminopeptidase 2 isoforms a and b in research focused on co-translational protein processing, angiogenesis, neural development, cardiac morphogenesis, metabolic regulation, and proteostasis in zebrafish. It supports studies examining N-terminal processing mechanisms, protein maturation, and developmental phenotypes linked to disrupted proteome integrity. NSJ Bioreagents provides this reagent within its zebrafish and protein-maturation 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 Metap2 antibody should be determined by the researcher.

Immunogen

An E.coli-derived zebrafish Metap2a/b recombinant protein (amino acids E191-R464) was used as the immunogen for the Zebrafish Metap2 antibody. This antibody will detect the a and b isoforms.

Storage

After reconstitution, the Zebrafish Metap2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.