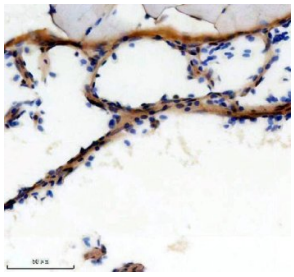
Zebrafish TBX1 Antibody / T-Box Transcription Factor TBX1 Antibody (RZ1392)

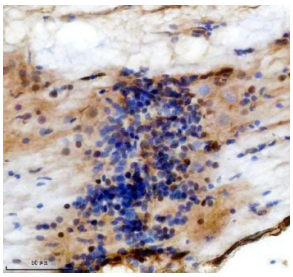
Catalog No.	Formulation	Size
RZ1392	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

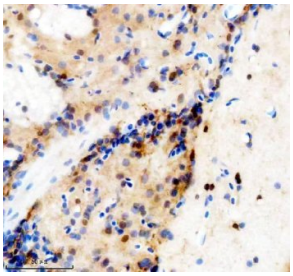
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/mL.
UniProt	Q8AXX2
Applications	Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish TBX1 Antibody / T-Box Transcription Factor TBX1 Antibody is available for research use only.



Zebrafish TBX1 Antibody Heart IHC. Immunohistochemical staining of paraffin-embedded zebrafish heart tissue using Zebrafish TBX1 Antibody / T-Box Transcription Factor TBX1 Antibody demonstrates distinct HRP-DAB brown staining within cardiac-associated tissue structures. TBX1 is a T-box family transcription factor that regulates developmental gene expression programs involved in embryonic patterning, tissue specification, and organogenesis. In zebrafish and other vertebrates, TBX1 plays important roles in cardiovascular development, pharyngeal arch formation, and morphogenesis of embryonic tissues. The observed staining pattern is consistent with expression of a developmental transcription factor associated with cardiac and cardiovascular development. Heat-mediated antigen retrieval was performed in EDTA buffer prior to overnight primary antibody incubation and HRP-DAB visualization.



Zebrafish TBX1 Antibody Spinal Cord IHC. Immunohistochemical staining of paraffin-embedded zebrafish spinal cord tissue using Zebrafish TBX1 Antibody / T-Box Transcription Factor TBX1 Antibody demonstrates HRP-DAB brown staining within cells and tissue structures surrounding the developing spinal cord. TBX1 is a T-box family transcription factor that regulates developmental gene expression programs involved in embryonic patterning, tissue specification, and organogenesis. During vertebrate development, TBX1 participates in genetic networks that influence formation of multiple organ systems and contributes to processes governing tissue morphogenesis and cellular differentiation. The observed staining pattern is consistent with expression of a developmental transcription factor associated with embryonic tissue organization and neurodevelopmental processes. Heat-mediated antigen retrieval was performed in EDTA buffer prior to overnight primary antibody incubation and HRP-DAB visualization.



Zebrafish TBX1 Antibody Brain IHC. Immunohistochemical staining of paraffin-embedded zebrafish brain tissue using Zebrafish TBX1 Antibody / T-Box Transcription Factor TBX1 Antibody demonstrates HRP-DAB brown staining within neural tissue and brain-associated cellular populations. TBX1 is a T-box family transcription factor that regulates developmental gene expression programs involved in embryonic patterning, tissue specification, and organogenesis. During vertebrate development, TBX1 participates in genetic networks that coordinate formation of multiple organ systems and contributes to cellular differentiation and tissue morphogenesis. The observed staining pattern is consistent with expression of a developmental transcription factor associated with neural development and embryonic tissue organization. Heat-mediated antigen retrieval was performed in EDTA buffer prior to overnight primary antibody incubation and HRP-DAB visualization.

Description

Zebrafish TBX1 Antibody / T-Box Transcription Factor TBX1 Antibody is useful for studying T-Box Transcription Factor 1 (TBX1), a developmental transcription factor that regulates gene expression programs involved in embryonic patterning, tissue specification, and organogenesis. TBX1 belongs to the highly conserved T-box family of DNA-binding proteins, which control cellular differentiation and developmental fate decisions throughout vertebrate embryogenesis. Through these activities, TBX1 contributes to formation of multiple organ systems and coordination of complex developmental processes.

TBX1 functions as a transcriptional regulator that influences proliferation, differentiation, and migration of embryonic cell populations. Members of the T-box family are essential for proper morphogenesis and tissue organization, acting within genetic networks that govern developmental patterning and organ formation. As a result, TBX1 occupies a central role in pathways that coordinate embryonic growth and structural development.

In zebrafish, TBX1 expression is associated with developing tissues involved in craniofacial, pharyngeal, cardiovascular, and musculoskeletal development. Analysis of TBX1 expression can provide insight into mechanisms controlling tissue specification, embryonic morphogenesis, and developmental signaling pathways. Because many TBX1-regulated processes are highly conserved among vertebrates, zebrafish serves as a valuable model for investigating developmental gene regulation and organogenesis.

The zebrafish model offers unique advantages for studying developmental biology due to its optical transparency, rapid embryogenesis, and genetic accessibility. These characteristics enable direct observation of tissue formation and facilitate analysis of transcription factors that regulate early developmental events. TBX1 is therefore widely utilized as a marker for studies of embryonic patterning, developmental regulation, and vertebrate organ development.

Beyond its role in tissue specification, TBX1 serves as an important indicator of developmental transcriptional programs that govern formation of complex anatomical structures. Investigation of TBX1 expression contributes to a broader

understanding of developmental genetics, embryology, and molecular pathways that direct vertebrate morphogenesis.

Zebrafish TBX1 antibodies are commonly used in immunohistochemistry, immunofluorescence, western blotting, and related protein detection applications to evaluate TBX1 expression and localization. These reagents support investigations of embryonic development, organogenesis, craniofacial development, cardiovascular biology, developmental signaling pathways, and vertebrate morphogenesis.

Learn more about TBX1 function in embryonic development, organogenesis, tissue patterning, and developmental gene regulation on our TBX1 Antibody page.

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 TBX1 Antibody / T-Box Transcription Factor TBX1 Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish TBX1 recombinant protein (amino acids P93-R420) was used as the immunogen for the Zebrafish TBX1 Antibody.

Storage

After reconstitution, the Zebrafish TBX1 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 T-Box Transcription Factor TBX1 Antibody, Zebrafish T-Box Protein 1 Antibody, Zebrafish TBX1 Transcription Factor Antibody, Zebrafish Developmental Transcription Factor Antibody, Zebrafish Pharyngeal Development Marker Antibody, Zebrafish Cardiofacial Development Protein Antibody

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