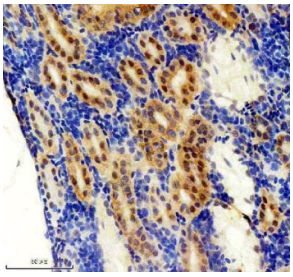
Zebrafish FOXJ1 Antibody / FOXJ1A Antibody (RZ1352)

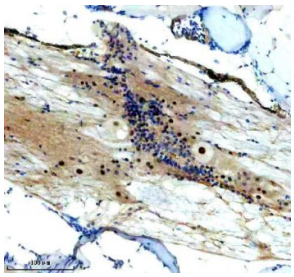
Catalog No.	Formulation	Size
RZ1352	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

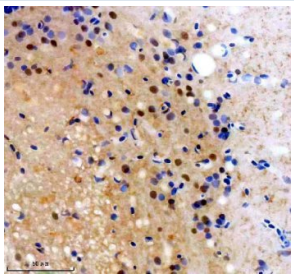
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/ml.
UniProt	F1QDF8
Applications	Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish FOXJ1 Antibody / FOXJ1A Antibody is available for research use only.



Zebrafish FOXJ1 / FOXJ1A Antibody Kidney IHC. Immunohistochemistry staining of FFPE zebrafish kidney tissue using Zebrafish FOXJ1 Antibody demonstrates prominent nuclear and cytoplasmic HRP-DAB brown staining within renal tubular epithelial cell populations. The staining pattern is consistent with expression of Forkhead Box J1A (FOXJ1A), a transcription factor that serves as a master regulator of motile ciliogenesis and ciliated cell differentiation. Strong epithelial-associated staining is consistent with the established role of FOXJ1A in regulating genes required for cilia formation, ciliary motility, and maintenance of specialized epithelial cell functions. Heat mediated antigen retrieval was performed in EDTA buffer. Primary antibody was incubated overnight at 4Â°C followed by detection using a peroxidase-conjugated goat anti-rabbit secondary antibody and DAB chromogen.



Zebrafish FOXJ1 / FOXJ1A Antibody Spinal Cord IHC. Immunohistochemistry staining of FFPE zebrafish spinal cord tissue using Zebrafish FOXJ1 Antibody demonstrates nuclear and cytoplasmic HRP-DAB brown staining within cells associated with spinal cord and surrounding neural tissue compartments. The staining pattern is consistent with expression of Forkhead Box J1A (FOXJ1A), a transcription factor that regulates motile ciliogenesis and controls gene expression programs required for ciliated cell differentiation. Signal is observed within neural-associated cellular populations, reflecting the established role of FOXJ1A in cilia-dependent developmental processes, tissue organization, and maintenance of specialized cell populations within the vertebrate nervous system. Heat mediated antigen retrieval was performed in EDTA buffer. Primary antibody was incubated overnight at 4Â°C followed by detection using a peroxidase-conjugated goat anti-rabbit secondary antibody and DAB chromogen.



Zebrafish FOXJ1 / FOXJ1A Antibody Brain IHC. Immunohistochemistry staining of FFPE zebrafish brain tissue using Zebrafish FOXJ1 Antibody demonstrates nuclear-predominant HRP-DAB brown staining within scattered neural-associated cellular populations. The staining pattern is consistent with expression of Forkhead Box J1A (FOXJ1A), a transcription factor that serves as a master regulator of motile ciliogenesis and ciliated cell differentiation. Signal is observed within brain-associated tissue compartments, reflecting the established role of FOXJ1A in regulating cilia-related gene expression, neural development, and maintenance of specialized cell populations within the vertebrate nervous system. Heat mediated antigen retrieval was performed in EDTA buffer. Primary antibody was incubated overnight at 4Â°C followed by detection using a peroxidase-conjugated goat anti-rabbit secondary antibody and DAB chromogen.

Description

Zebrafish FOXJ1 Antibody / FOXJ1A Antibody recognizes Forkhead Box J1A (FOXJ1A), a member of the forkhead family of transcription factors and a master regulator of motile ciliogenesis. FOXJ1A controls expression of numerous genes required for the assembly, differentiation, and function of motile cilia, specialized cellular structures that generate fluid flow and contribute to developmental signaling. Through regulation of cilia-associated gene networks, FOXJ1A plays a critical role in tissue organization, embryonic patterning, and organ development. The highly conserved function of FOXJ1 proteins has made zebrafish an important vertebrate model for investigating ciliogenesis and cilia-dependent biological processes.

Motile cilia are essential for a variety of developmental and physiological functions, including fluid movement, left-right axis determination, respiratory tract function, and reproductive biology. In zebrafish, FOXJ1A contributes to formation of ciliated cell populations and regulation of genes required for ciliary structure and motility. Expression of FOXJ1A is frequently examined in studies investigating cilia development, epithelial differentiation, developmental patterning, and organogenesis. Because defects in motile cilia can disrupt numerous developmental pathways, FOXJ1A serves as an important marker of ciliated cell differentiation.

FOXJ1A functions as a transcriptional regulator that coordinates complex genetic programs involved in basal body formation, axoneme assembly, and ciliary motility. Activation of FOXJ1A-dependent pathways promotes differentiation of cells capable of producing functional motile cilia. Consequently, FOXJ1A has become a widely studied target in developmental biology, cell biology, and investigations of cilia-associated disorders. Analysis of FOXJ1A expression can provide valuable insight into the molecular mechanisms governing ciliogenesis and tissue morphogenesis.

Zebrafish offer unique advantages for studying ciliary biology because many cilia-dependent developmental events can be observed directly during embryogenesis. Researchers frequently evaluate FOXJ1A expression during studies of left-right asymmetry, kidney development, neural development, epithelial differentiation, and organ formation. Because ciliary pathways are highly conserved among vertebrates, findings generated using zebrafish models often provide important insight into the mechanisms that regulate cilia formation and function.

At NSJ Bioreagents, we provide highly validated antibodies for developmental biology, cell biology, and zebrafish research. Zebrafish FOXJ1 Antibody / FOXJ1A Antibody targets a key transcriptional regulator of motile ciliogenesis and ciliated cell differentiation. FOXJ1A expression is widely studied in the context of cilia formation, developmental patterning, epithelial biology, organogenesis, and vertebrate development. Continued investigation of FOXJ1A is expanding our understanding of the molecular pathways that govern ciliary function and tissue organization.

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 FOXJ1 Antibody / FOXJ1A Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish FOXJ1A recombinant protein (amino acids K217-S338) was used as the immunogen for the Zebrafish FOXJ1 / FOXJ1A Antibody.

Storage

After reconstitution, the Zebrafish FOXJ1 / FOXJ1A 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 FOXJ1A Antibody, Zebrafish Forkhead Box J1A Antibody, Zebrafish Ciliogenesis Transcription Factor Antibody, Zebrafish Motile Cilia Regulator Antibody, Zebrafish Ciliated Cell Marker Antibody, Zebrafish Forkhead Family Transcription Factor Antibody

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