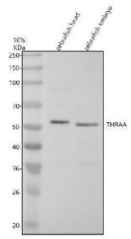
Zebrafish THRA Antibody / Thyroid Hormone Receptor Alpha A Antibody (RZ1472)

Catalog No.	Formulation	Size
RZ1472	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	Q98867
Applications	Western blot: 0.5-1ug/ml
Limitations	This Zebrafish THRA Antibody / Thyroid Hormone Receptor Alpha A Antibody is available for research use only.



Zebrafish THRA Antibody / Thyroid Hormone Receptor Alpha A Antibody Zebrafish Head and Embryo WB. Western blot analysis of zebrafish head and embryo tissue lysates using Zebrafish THRA Antibody / Thyroid Hormone Receptor Alpha A Antibody. A distinct immunoreactive band is detected at approximately 52 kDa in both samples, consistent with expression of zebrafish THRAA. The observed molecular weight is in close agreement with the predicted size of approximately 49 kDa, supporting specific detection of the target protein. Proteins were separated under reducing conditions, transferred to a nitrocellulose membrane, and detected following incubation with the primary antibody (0.5 ug/ml) and an HRP-conjugated goat anti-rabbit secondary antibody using ECL detection.

Description

Zebrafish THRA Antibody / Thyroid Hormone Receptor Alpha A Antibody recognizes the zebrafish THRAA ortholog of human thyroid hormone receptor alpha (THRA), a ligand-dependent nuclear receptor that mediates the biological effects of thyroid hormones by regulating gene transcription. Upon binding triiodothyronine, THRA interacts with thyroid hormone response elements within DNA to control genes involved in embryonic development, metabolism, growth, cellular differentiation, and tissue maturation. Because thyroid hormone signaling is highly conserved among vertebrates,

zebrafish provides an excellent model for investigating endocrine regulation and developmental biology. Zebrafish THRA Antibody / Thyroid Hormone Receptor Alpha Antibody is therefore well suited for studies of thyroid hormone receptor expression and function.

During zebrafish embryogenesis, THRA signaling plays an important role in coordinating developmental timing and organ maturation. Expression of THRAA contributes to central nervous system development, skeletal muscle differentiation, cardiovascular maturation, retinal development, and craniofacial patterning. Thyroid hormone signaling also regulates neuronal differentiation, myelination, and metabolic programming during embryonic and larval development. Disruption of THRA activity can impair normal tissue maturation and alter developmental progression, emphasizing its essential role throughout vertebrate embryogenesis.

Beyond development, THRA regulates numerous physiological processes that maintain tissue homeostasis and metabolic balance throughout adulthood. The receptor influences energy expenditure, mitochondrial function, lipid and carbohydrate metabolism, cardiac physiology, reproductive function, and regenerative responses following tissue injury. Zebrafish has therefore become an important model for studying thyroid disorders, endocrine disruption, metabolic disease, cardiovascular biology, and neurodevelopmental conditions because many THRA-dependent signaling pathways remain highly conserved between fish and humans.

Zebrafish THRA Antibody / Thyroid Hormone Receptor Alpha A Antibody is a valuable research reagent for immunohistochemistry, immunofluorescence, western blotting, and other applications requiring reliable detection of THRA expression and localization. Investigators commonly use this antibody to characterize thyroid hormone receptor distribution during embryonic development, evaluate endocrine signaling pathways, and investigate molecular mechanisms governing growth, metabolism, regeneration, and nervous system maturation. By supporting studies of one of the principal nuclear receptors controlling vertebrate development and physiology, Zebrafish THRA Antibody / Thyroid Hormone Receptor Alpha A Antibody provides a dependable tool for endocrine, developmental, and translational research.

Learn more about THRA biology, thyroid hormone signaling, and additional validated products on our THRA 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 THRA Antibody / Thyroid Hormone Receptor Alpha A Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish THRAA recombinant protein (amino acids M1-H365) was used as the immunogen for the Zebrafish THRAA Antibody.

Storage

After reconstitution, the Zebrafish THRAA 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 THRA antibody, Zebrafish THRAA antibody, Zebrafish Thyroid Hormone Receptor Alpha antibody, Zebrafish Thyroid Hormone Receptor Alpha A antibody, Zebrafish TR Alpha antibody, Zebrafish Nuclear Thyroid Hormone Receptor Alpha antibody

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