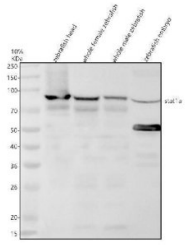
Zebrafish STAT1 Antibody / STAT1A Antibody (RZ1442)

Catalog No.	Formulation	Size
RZ1442	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	O93598
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish STAT1 Antibody / STAT1A Antibody is available for research use only.



Zebrafish STAT1 Antibody WB. Western blot analysis of STAT1A using anti-STAT1A antibody demonstrates a prominent immunoreactive band at approximately 86 kDa in zebrafish head, whole female, whole male, and embryo tissue lysates, consistent with the expected molecular weight of STAT1, the zebrafish ortholog of human Signal Transducer and Activator of Transcription 1. STAT1 is a key transcription factor within the JAK-STAT signaling pathway that mediates interferon responses, cytokine signaling, and immune regulatory processes. The observed expression across developmental and adult tissue samples is consistent with the broad biologic role of STAT1 in host defense, transcriptional regulation, and cellular signaling. Western blot was performed using 0.5 ug/ml primary antibody. Predicted molecular weight: ~86 kDa.

Description

Zebrafish STAT1 Antibody / STAT1A Antibody is designed for the detection and study of STAT1A, the zebrafish ortholog of human STAT1 (Signal Transducer and Activator of Transcription 1), a transcription factor that serves as a central mediator of cytokine and interferon signaling pathways. Zebrafish STAT1 Antibody enables investigation of molecular mechanisms that regulate immune responses, gene expression, and cellular adaptation to extracellular signaling cues. Through these activities, STAT1 contributes to host defense, developmental regulation, and maintenance of physiologic homeostasis.

STAT1 belongs to the STAT family of transcription factors that function downstream of cytokine receptors through the JAK-STAT signaling pathway. Upon activation by interferons and other cytokines, STAT1 undergoes phosphorylation, dimerization, and nuclear translocation, where it regulates expression of genes involved in immune function, cellular signaling, and biologic responses to environmental stimuli. Zebrafish STAT1 Antibody is useful for studying these highly conserved signaling pathways and their downstream regulatory networks.

Zebrafish provide a valuable vertebrate model for investigating innate immunity, cytokine signaling, developmental biology, and host-pathogen interactions. STAT1-dependent pathways are highly conserved among vertebrates and play critical roles in antiviral defense, inflammatory regulation, and immune system development. Studies utilizing Zebrafish STAT1 Antibody can help characterize expression patterns associated with immune signaling and developmental regulation throughout the zebrafish life cycle.

Beyond immunology, STAT1 has attracted significant interest in research involving cancer biology, cell signaling, transcriptional regulation, and developmental processes. Because STAT1 functions as a key transcriptional regulator linking extracellular signals to gene expression programs, it remains an important target for investigations examining how cytokine signaling pathways influence cellular behavior and tissue function. Zebrafish STAT1 Antibody supports these studies by enabling characterization of STAT1 expression in developmental and adult tissues.

Zebrafish STAT1 Antibody is useful for investigating interferon signaling, JAK-STAT pathways, immune regulation, transcriptional control, and vertebrate physiology. Researchers utilize Zebrafish STAT1 Antibody to better understand molecular mechanisms governing cytokine responses, host defense, developmental signaling, and gene regulatory networks.

Learn more about STAT1 function, interferon signaling, and JAK-STAT pathway regulation on our STAT1 Antibody / JAK-STAT Pathway Transcription Factor 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 STAT1 Antibody / STAT1A Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish Signal Transducer and Activator of Transcription 1 recombinant protein (amino acids R72-E741) was used as the immunogen for the Zebrafish STAT1A / STAT1 Antibody.

Storage

After reconstitution, the Zebrafish STAT1A / STAT1 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 STAT1 Antibody, Zebrafish STAT1A Antibody, Zebrafish Signal Transducer and Activator of Transcription 1 Antibody, Zebrafish Interferon Signaling Protein Antibody, Zebrafish JAK-STAT Pathway Protein Antibody, Zebrafish Transcription Factor STAT1 Antibody, Zebrafish Immune Response Regulator Antibody

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