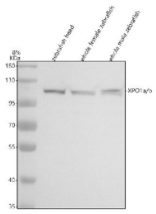
Zebrafish Xpo1 Antibody / Xpo1a / Xpo1b / Exportin 1 (RZ1324)

Catalog No.	Formulation	Size
RZ1324	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	E7F0E8, A0A8M9PPG9
Applications	Western Blot: 0.5-1ug/ml
Limitations	This Zebrafish Xpo1 antibody is available for research use only.



Zebrafish Xpo1 Antibody Tissue WB. Western blot analysis of Xpo1a/b protein using Zebrafish Xpo1 antibody and 1) zebrafish head, 2) whole female zebrafish, 3) whole male zebrafish tissue lysate. Predicted molecular weight ~123 kDa.

Description

Zebrafish Xpo1 antibody targets Exportin 1 (Xpo1), also known as chromosome region maintenance 1, a highly conserved nuclear export receptor that mediates the transport of proteins and ribonucleoprotein complexes from the nucleus to the cytoplasm. In zebrafish, also known as Danio rerio, Xpo1 is represented by paralogs Xpo1a and Xpo1b arising from teleost genome duplication, and together they support essential nucleocytoplasmic trafficking processes. Xpo1 recognizes cargo proteins containing leucine-rich nuclear export signals and facilitates their translocation through the nuclear pore complex in a Ran GTP-dependent manner. The protein localizes predominantly to the nucleus and nuclear envelope, reflecting its central role in nuclear export pathways.

Functionally, Xpo1 regulates the subcellular distribution of numerous proteins involved in cell cycle progression, transcriptional regulation, signal transduction, and stress responses. In zebrafish embryos, Xpo1 activity is required for normal development, as proper nucleocytoplasmic transport is essential for coordinating gene expression and cellular differentiation. Xpo1 expression is broadly detected across tissues, consistent with its fundamental role in maintaining cellular organization and homeostasis. A Zebrafish Xpo1 antibody supports studies examining nuclear export mechanisms and protein localization dynamics in Danio rerio.

Zebrafish has emerged as a useful model for studying conserved nuclear transport pathways due to strong evolutionary conservation and experimental accessibility. Disruption of Xpo1 function in zebrafish has been associated with defects in cell proliferation, altered signaling pathways, and developmental abnormalities, underscoring the importance of regulated nuclear export for organismal development. A Zebrafish Xpo1 antibody enables analysis of Xpo1 expression patterns, paralog-specific regulation, and responses to cellular stress or signaling cues.

From a biological and disease-relevance perspective, Exportin 1 is extensively studied in mammalian systems for its involvement in cancer, viral infection, and neurodegenerative disease, as dysregulated nuclear export can lead to aberrant localization of key regulatory proteins. Zebrafish Xpo1 provides a conserved comparative system for investigating how nuclear export influences cell fate decisions and disease-related pathways in vivo. Studies in zebrafish contribute to understanding the developmental and physiological consequences of altered nucleocytoplasmic transport.

At the molecular level, zebrafish Xpo1a and Xpo1b are encoded by the xpo1a and xpo1b genes and produce proteins of approximately 1070 amino acids, consistent with vertebrate Exportin 1 orthologs. The protein contains HEAT repeat domains that mediate cargo recognition and interaction with Ran GTP. Regulation of Xpo1 activity depends on the Ran GTPase cycle and cellular signaling context. A Zebrafish Xpo1 antibody supports research applications focused on nuclear transport, protein localization, and cell cycle regulation in zebrafish, with NSJ Bioreagents providing reagents intended for research use.

This Zebrafish antibody is part of a broader Zebrafish / Danio rerio antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Zebrafish Xpo1 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Xpo1 recombinant protein (amino acids H988-L1054) was used as the immunogen for the Zebrafish Xpo1 antibody.

Storage

After reconstitution, the Zebrafish Xpo1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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