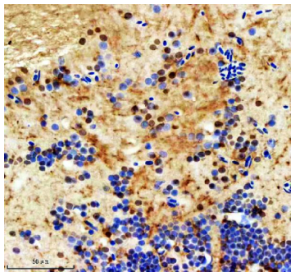
Zebrafish Ints12 Antibody / Integrator complex subunit 12 (RZ1025)

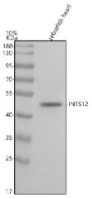
Catalog No.	Formulation	Size
RZ1025	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

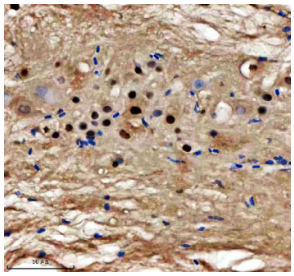
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q6IQU7
Localization	Nuclear, cytoplasmic, cell membrane
Applications	Western Blot : 0.5-1 ug/ml Immunohistochemistry (FFPE) : 2-5 ug/ml Immunofluorescence : 5ug/ml
Limitations	This Zebrafish Ints12 antibody is available for research use only.



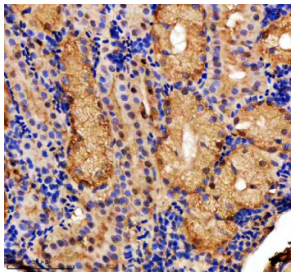
Zebrafish Ints12 Antibody Brain IHC. Immunohistochemical analysis of Ints12 protein using Zebrafish Ints12 antibody and paraffin-embedded zebrafish brain tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



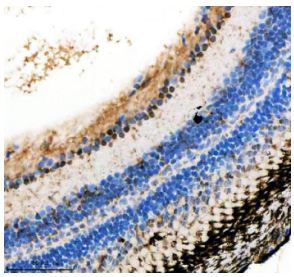
Zebrafish Ints12 Antibody WB. Western blot analysis of Ints12 protein using Zebrafish Ints12 antibody and zebrafish head tissue lysate. The predicted molecular weight of Ints12 is 49 kDa.



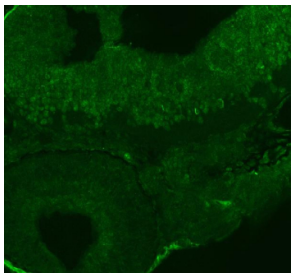
Zebrafish Ints12 Antibody Spinal Cord IHC. Immunohistochemical analysis of Ints12 protein using Zebrafish Ints12 antibody and paraffin-embedded zebrafish spinal cord tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Ints12 Antibody Kidney IHC. Immunohistochemical analysis of Ints12 protein using Zebrafish Ints12 antibody and paraffin-embedded zebrafish kidney tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Ints12 Antibody Eye IHC. Immunohistochemical analysis of Ints12 protein using Zebrafish Ints12 antibody and paraffin-embedded zebrafish eye tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Ints12 Antibody Embryo IF. Immunofluorescent staining of FFPE zebrafish embryo tissue with Zebrafish Ints12 antibody (green). HIER: steam section in pH8 EDTA buffer for 20 min.

Description

Zebrafish (Danio rerio) Ints12 antibody recognizes Integrator complex subunit 12, a conserved nuclear protein encoded by the zebrafish ints12 gene on chromosome 24. Ints12 is a core component of the Integrator complex, a large multi-subunit assembly associated with RNA polymerase II that functions in the processing of small nuclear RNAs, transcriptional attenuation, and regulation of gene expression. In Danio rerio, Ints12 is expressed early in embryogenesis and is enriched in proliferative tissues including brain, neural tube, somites, craniofacial mesenchyme, and developing endodermal organs. Subcellular localization is predominantly nuclear, with enrichment at transcriptionally active chromatin and RNA processing centers.

Integrator complex subunit 12 contributes to the endonucleolytic processing of UsnRNAs, a key step in the maturation of spliceosomal components required for accurate pre mRNA splicing. Through its participation in Integrator, Ints12 also influences promoter-proximal transcription termination and the fine-tuning of RNA polymerase II activity. In zebrafish embryos, these functions are essential for coordinating the rapid transcriptome remodeling that accompanies differentiation, morphogenesis, and early organ formation. Proper Ints12 activity helps regulate transcriptional responses that control neural patterning, mesoderm specification, and epithelial organization.

During early development, Ints12 supports gene expression programs required for neural induction and somite formation. Disruption of Integrator subunits, including Ints12, can lead to widespread defects in transcript processing, resulting in abnormal tissue differentiation and impaired morphogenesis. Because many developmental pathways depend on precise regulation of transcriptional elongation and snRNA maturation, Ints12 plays a central role in orchestrating early lineage decisions. Zebrafish studies have shown that altered integrator activity can affect craniofacial patterning, neural tube development, and metabolic gene networks during embryogenesis.

Beyond its roles in UsnRNA processing, Ints12 participates in regulatory pathways that influence RNA stability, enhancer transcription, and the processing of promoter-proximal transcripts. Integrator components modulate transcriptional attenuation at thousands of genes across vertebrates, allowing Ints12 to influence signaling pathways such as FGF, Wnt, and Hedgehog by regulating gene expression dynamics. These functions are especially important in zebrafish embryos, where rapid developmental transitions require tightly controlled RNA polymerase II activity.

Integrator complex subunit 12 also contributes to stress response pathways. Under environmental, chemical, or metabolic stress, Integrator components help modulate transcriptional output and protect cells from aberrant RNA accumulation. Isoform variation of ints12 may provide tissue-specific regulatory features that tailor Integrator activity to different developmental stages or cellular contexts. Because snRNA maturation defects can disrupt splicing and downstream gene networks, Ints12 is relevant in broader models of RNA processing disorders and chromatin-associated disease mechanisms.

This Zebrafish Ints12 antibody is suitable for detecting Integrator complex subunit 12 in research focused on RNA polymerase II regulation, snRNA processing, neural development, transcriptional attenuation, and embryonic patterning in zebrafish. It supports studies examining Integrator complex assembly, RNA processing dynamics, and developmental phenotypes arising from impaired transcriptional regulation. NSJ Bioreagents provides this reagent within its zebrafish and RNA biology antibody collection.

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

Application Notes

Optimal dilution of the Zebrafish Ints12 antibody should be determined by the researcher.

Immunogen

An E.coli-derived zebrafish Ints12 recombinant protein (amino acids M1-K394) was used as the immunogen for the Zebrafish Ints12 antibody.

Storage

After reconstitution, the Zebrafish Ints12 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.