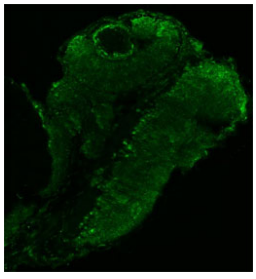
Zebrafish ILF2 Antibody / Interleukin enhancer-binding factor 2 / NF45 (RZ1039)

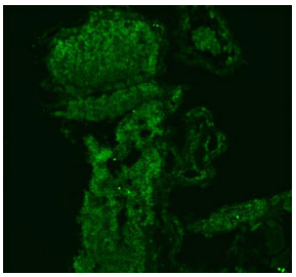
Catalog No.	Formulation	Size
RZ1039	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

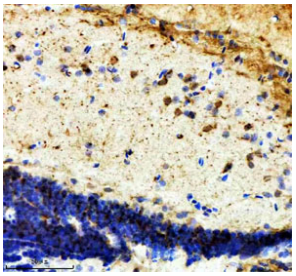
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q6NZ06
Localization	Cytoplasm, Nucleus
Applications	Western Blot : 0.5-1 ug/ml Immunohistochemistry (FFPE) : 2-5 ug/ml Immunofluorescence : 5ug/ml
Limitations	This Zebrafish ILF2 antibody is available for research use only.



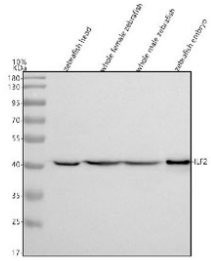
Zebrafish ILF2 Antibody Embryo IF. Immunofluorescent staining of FFPE zebrafish embryo tissue with Zebrafish ILF2 antibody (green). HIER: steam section in pH8 EDTA buffer for 20 min.



Zebrafish ILF2 Antibody Embryo Tissue IF. Immunofluorescent staining of FFPE zebrafish embryo tissue with Zebrafish ILF2 antibody (green). HIER: steam section in pH8 EDTA buffer for 20 min.



Zebrafish ILF2 Antibody Brain IHC. Immunohistochemistry staining of FFPE human brain tissue with Zebrafish ILF2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish ILF2 Antibody WB. Western blot analysis of NF45/ILF2 protein using Zebrafish ILF2 antibody and 1) zebrafish head 2) whole female zebrafish, 3) whole male zebrafish and 4) zebrafish embryo tissue lysate. Expected molecular weight ~43 kDa.

Description

Zebrafish (Danio rerio) ILF2 antibody recognizes Interleukin enhancer-binding factor 2, also known as NF45, a conserved RNA binding and transcription-regulatory protein encoded by the zebrafish ilf2 gene. ILF2 forms a stable heterodimer with ILF3 (NF90), together functioning in multiple aspects of RNA metabolism, transcriptional regulation, DNA repair, and immune-related gene expression. In Danio rerio, ILF2 is widely expressed during embryogenesis with enrichment in proliferative tissues including the developing brain, neural tube, somites, craniofacial mesenchyme, hematopoietic regions, and early endodermal organs. Subcellular localization is predominantly nuclear but includes cytoplasmic pools that participate in RNA processing and transport.

Interleukin enhancer-binding factor 2 plays a central role in coordinating transcription and RNA handling during rapid developmental transitions. ILF2 contributes to transcriptional activation at promoters regulated by cytokine-responsive or developmental transcription factors. In zebrafish, ILF2 is required for the correct expression of genes that shape neural patterning, hematopoietic lineage commitment, and mesodermal organization. Because early zebrafish tissues undergo rapid cell division and extensive transcriptional remodeling, ILF2-mediated stabilization of RNA-protein complexes supports gene expression fidelity.

ILF2 also participates in mRNA stabilization, nuclear export, and the assembly of ribonucleoprotein particles. Together with ILF3, ILF2 binds structured regions of target mRNAs to regulate transcript half-life and translational competence. During zebrafish development, these post transcriptional mechanisms influence cell cycle progression, neural crest differentiation, muscle precursor development, and early immune system formation. ILF2-dependent RNA regulation is especially important in neural progenitor populations where precise expression of differentiation regulators is required for proper brain and spinal cord patterning.

ILF2 contributes to DNA damage responses and genome maintenance. In vertebrate systems, ILF2 participates in double-strand break repair, checkpoint signaling, and chromatin-associated stress responses. These functions appear conserved in zebrafish, where ILF2 activity supports resilience during periods of high replication stress in early embryos. Developing

tissues that rely on robust proliferation, such as retina, brain ventricles, and hematopoietic sites, require efficient ILF2-mediated regulatory mechanisms to maintain genomic stability.

ILF2 also influences immune-related transcriptional programs. Although zebrafish embryos lack a fully mature adaptive immune system, ILF2 participates in early innate immune signaling and cytokine-responsive gene regulation. NF45 has been implicated in controlling the expression of factors involved in inflammatory signaling, antiviral defense, and stress adaptation, processes that are increasingly studied using zebrafish as a transparent, genetically tractable vertebrate model. ILF2 helps modulate gene networks linked to NF-kappaB activity, interferon responses, and stress-induced transcriptional reprogramming.

At the molecular level, ILF2 contains RNA binding domains, coactivator motifs, and regulatory regions that interact with ILF3, transcription factors, and chromatin-associated proteins. Isoform diversity or differential regulation may fine-tune ILF2 activity across embryonic tissues. Its dual involvement in transcriptional activation and RNA regulation positions ILF2 as a key integrator of nuclear processes that support rapid developmental progression.

This Zebrafish ILF2 antibody is suitable for detecting NF45 in research focused on transcriptional control, RNA processing, neural development, hematopoiesis, DNA repair, and innate immune signaling in zebrafish. It supports studies examining ILF2-ILF3 ribonucleoprotein complexes, promoter activation mechanisms, and developmental phenotypes resulting from altered RNA-protein regulation. NSJ Bioreagents provides this reagent within its zebrafish and RNA regulation 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 ILF2 antibody should be determined by the researcher.

Immunogen

An E.coli-derived zebrafish NF45/ILF2 recombinant protein (amino acids Y23-K356) was used as the immunogen for the Zebrafish ILF2 antibody.

Storage

After reconstitution, the Zebrafish ILF2 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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