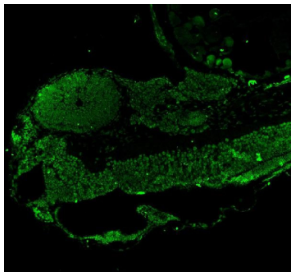
Zebrafish Leo1 Antibody / RNA polymerase-associated protein LEO1 (RZ1233)

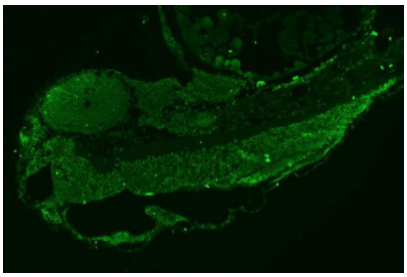
Catalog No.	Formulation	Size
RZ1233	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

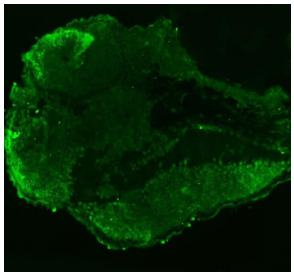
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q6NYV9
Localization	Nuclear
Applications	Western Blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml
Limitations	This Zebrafish Leo1 antibody is available for research use only.



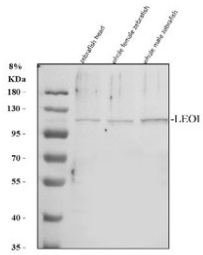
Zebrafish Leo1 Antibody Embryo Tissue IF. Immunofluorescent analysis of Leo1 protein, also known as Leo1 PAF1 complex component, in Danio rerio embryo tissue using Zebrafish Leo1 antibody (green). Signal is observed throughout embryonic cell populations with predominantly nuclear localization, consistent with Leo1 function in transcriptional regulation during development. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



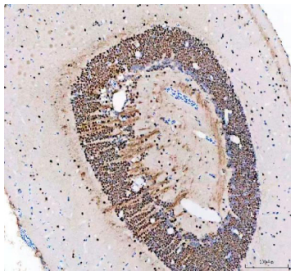
Zebrafish Leo1 Antibody Embryo Section IF. Immunofluorescent staining of Leo1 protein, also referred to as Leo1 PAF1 complex component, in zebrafish embryo tissue using Zebrafish Leo1 antibody (green). Distinct nuclear staining highlights widespread expression across developing embryonic structures, reflecting its role in gene expression control and early developmental processes. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Leo1 Antibody Embryo Cellular IF. Immunofluorescent detection of Leo1 protein, a component of the PAF1 transcriptional complex, in Danio rerio embryo tissue using Zebrafish Leo1 antibody (green). Strong intracellular signal is present across embryonic cells, with enrichment in nuclear regions consistent with involvement in transcription-associated complexes. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



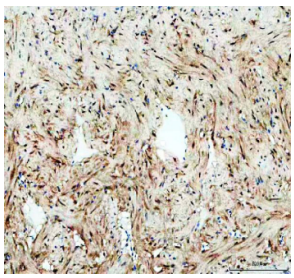
Zebrafish Leo1 Antibody Tissue WB. Western blot analysis of Leo1 protein using Zebrafish Leo1 antibody and 1) zebrafish head, 2) whole female zebrafish and 3) whole male zebrafish tissue lysate. Predicted molecular weight ~76 kDa but can be observed at ~105 kDa (human similarity).



Zebrafish Leo1 Antibody Brain Tissue IHC. Immunohistochemistry staining of FFPE zebrafish brain tissue with Zebrafish Leo1 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Leo1 Antibody Eye Tissue IHC. Immunohistochemistry staining of FFPE zebrafish eye tissue with Zebrafish Leo1 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Leo1 Antibody Heart Tissue IHC. Immunohistochemistry staining of FFPE zebrafish heart tissue with Zebrafish Leo1 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

The Zebrafish Leo1 antibody targets Leo1, an RNA polymerase-associated protein essential for transcriptional regulation, chromatin organization, and developmental gene expression in Danio rerio. Zebrafish, also known as Danio rerio, express leo1 as a core component of the Paf1 complex (RNA polymerase II-associated factor complex), a conserved regulatory assembly that associates with elongating RNA polymerase II to coordinate transcriptional elongation, histone modification, and mRNA processing. Leo1 localizes to the nucleus, where it participates in stabilizing Paf1 complex interactions and modulating transcriptional programs required for embryonic patterning, organogenesis, and lineage differentiation.

Leo1 belongs to the Leo1-like protein family and functions within the multi-subunit Paf1 complex alongside Paf1, Ctr9, Cdc73, Rtf1, and Ski8/Wdr61. This complex is involved in regulating chromatin modifications such as H3K4 and H3K36 methylation, facilitating transcriptional elongation, and integrating signals that control gene activation. In zebrafish embryos, leo1 is expressed in proliferative and transcriptionally active tissues, including the neural plate, developing brain, somites, and emerging endodermal organs. A Zebrafish Leo1 antibody is suitable for research applications examining nuclear expression patterns, Paf1 complex localization, and transcription-regulatory mechanisms across developmental stages.

Functionally, Leo1 contributes to a wide range of developmental processes by regulating gene expression at the chromatin level. In the nervous system, Leo1 supports neuronal progenitor maintenance and differentiation by modulating transcription of neurogenic genes. In endodermal and mesodermal tissues, Leo1 influences programs governing heart development, somite maturation, and early organ bud formation. Because the Paf1 complex interacts with signaling pathways including Wnt, Hedgehog, and Notch, Leo1 plays an indirect but important role in translating developmental cues into transcriptional outcomes. Disruption of leo1 expression alters chromatin states, affects transcription fidelity, and can impair organ formation or axis patterning in zebrafish models.

Structurally, zebrafish Leo1 contains conserved protein interaction domains enabling stable association with the Paf1 complex and RNA polymerase II. These features allow Leo1 to participate in co-transcriptional processes, including histone modification recruitment and mRNA maturation. Zebrafish leo1 maps to chromosome 13, with regulatory elements driving its expression in transcriptionally active embryonic tissues. Co-localization studies frequently detect Leo1 in nuclei of neuroepithelial cells, somitic progenitors, and endodermal organ primordia, often overlapping with markers of transcriptional elongation and chromatin modification enzymes.

A Zebrafish Leo1 antibody is suitable for detecting Leo1 in studies focused on transcriptional regulation, chromatin dynamics, neural development, somite maturation, and organogenesis in Danio rerio. Its nuclear localization provides insight into where active transcriptional elongation and Paf1 complex activity are shaping gene expression landscapes during embryonic and larval development. Researchers use Leo1 expression to evaluate transcriptional integrity, investigate regulatory networks controlling tissue differentiation, and analyze how perturbations in chromatin-associated factors affect developmental programs. These features make the antibody valuable for studies in developmental genomics, transcriptional control, epigenetics, and vertebrate embryology, and this reagent is supplied for research use by NSJ Bioreagents.

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

Application Notes

Optimal dilution of the Zebrafish Leo1 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Leo1 recombinant protein (amino acids E333-K571) was used as the immunogen for the Zebrafish Leo1 antibody.

Storage

After reconstitution, the Zebrafish Leo1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and

store at -20oC. Avoid repeated freezing and thawing.

Copyright © NSJ Bioreagents. All rights reserved.