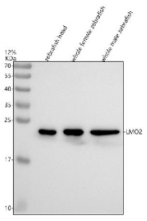
Zebrafish Lmo2 Antibody / Rhombotin 2 Transcription Factor Antibody (RZ1118)

Catalog No.	Formulation	Size
RZ1118	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	Q9PTJ3
Applications	Western Blot : 0.5-1 ug/ml
Limitations	This Zebrafish Lmo2 Antibody / Rhombotin 2 Transcription Factor Antibody is available for research use only.



Zebrafish Lmo2 Antibody Tissue WB. Western blot analysis of LIM domain only 2 Lmo2, also known as Rhombotin 2, in Danio rerio tissue lysates using Zebrafish Lmo2 antibody. Lane 1: zebrafish head lysate, Lane 2: whole female zebrafish lysate, Lane 3: whole male zebrafish lysate. A band is detected at approximately 18 kDa, consistent with the predicted molecular weight of Lmo2, supporting its function as a Rhombotin 2 transcription factor involved in hematopoietic and vascular gene regulation.

Description

LIM domain only 2 (Lmo2) is a transcriptional co-regulator encoded by the lmo2 gene and commonly known as Rhombotin 2, functioning as a key component of multi-protein complexes that control gene expression during hematopoietic and vascular development in Danio rerio. Zebrafish Lmo2 antibody targets this protein, which is predominantly expressed in hematopoietic progenitors and endothelial cells where it regulates lineage specification and developmental signaling pathways. Zebrafish, also known as Danio rerio, rely on Lmo2 activity to coordinate early blood

formation and vascular patterning, making it an essential factor in transcriptional control of developmental processes. Zebrafish Lmo2 antibody, also referred to as Rhombotin 2 antibody or LIM domain only protein 2 antibody, is widely used for molecular analysis of transcriptional regulation in zebrafish systems.

Zebrafish Lmo2 antibody detects a LIM-only protein that functions through protein-protein interactions rather than direct DNA binding. Lmo2 interacts with transcription factors such as Tal1, Gata2, and Ldb1 to assemble regulatory complexes that control the transcription of genes involved in hematopoiesis and endothelial differentiation. Western blot detection of Lmo2 supports analysis of its expression across developmental stages and experimental conditions, providing a reliable method for monitoring protein-level changes in zebrafish samples.

Functionally, Lmo2 regulates the emergence and maintenance of hematopoietic stem cells and supports vascular integrity. In zebrafish embryos, lmo2 expression is localized to developing blood and vascular tissues, where it contributes to erythropoiesis, angiogenesis, and endothelial cell specification. Its expression pattern reflects active transcriptional regulation of developmental pathways, making it a useful indicator of gene regulatory activity.

At the subcellular level, Lmo2 localizes to the nucleus, where it participates in transcriptional complexes that modulate gene expression. Its activity influences downstream pathways involved in cell proliferation, differentiation, and tissue organization. Because Lmo2 does not bind DNA directly, its regulatory effects depend on interactions with partner proteins, highlighting its role as a central integrator of transcriptional signaling networks.

Structurally, Lmo2 contains two LIM domains that coordinate zinc ions and mediate specific protein-protein interactions. These domains enable the formation of stable transcriptional complexes essential for developmental gene regulation. The zebrafish lmo2 gene maps to chromosome 12 and is dynamically expressed during embryogenesis and tissue differentiation.

A Zebrafish Lmo2 antibody is suitable for research applications focused on transcriptional regulation, hematopoietic lineage specification, and vascular development in Danio rerio. Western blot analysis enables detection of Lmo2 protein expression in zebrafish lysates, supporting studies of developmental signaling pathways, transcriptional complex formation, and gene regulatory mechanisms. This antibody 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 Lmo2 Antibody / Rhombotin 2 Transcription Factor Antibody should be determined by the researcher.

Immunogen

An E.coli-derived zebrafish Lmo2 recombinant protein (amino acids E14-A124) was used as the immunogen for the Zebrafish Lmo2 antibody.

Storage

After reconstitution, the Zebrafish Lmo2 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

Lmo2 antibody, Rhombotin 2 antibody, LIM domain only protein 2 antibody, Rbtn2 antibody, LIM domain transcription regulator Lmo2 antibody