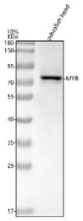
Zebrafish c-Myb Antibody / Myb (RZ1210)

Catalog No.	Formulation	Size
RZ1210	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	F1QP25, F1QP24
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish C-myb antibody is available for research use only.



Zebrafish c-Myb Antibody Head Tissue WB. Western blot analysis of c-Myb protein using Zebrafish c-Myb antibody and zebrafish head tissue lysates. Predicted molecular weight ~67 kDa and ~72 kDa (two isoforms).

Description

The Zebrafish c-Myb antibody targets c-Myb, a nuclear transcription factor essential for hematopoietic lineage specification, progenitor maintenance, and early developmental patterning in Danio rerio. Zebrafish, also known as Danio rerio, express myb as a key regulator of definitive hematopoiesis, where it governs the proliferation and survival of multipotent blood progenitors. c-Myb contains a characteristic N-terminal DNA binding domain composed of tandem repeats, a central transactivation region, and a C-terminal regulatory domain that modulates transcriptional output. It localizes to the nucleus and participates in gene expression programs that shape early blood cell development, stem cell renewal, and lineage differentiation.

c-Myb belongs to the Myb family of transcription factors, an evolutionarily conserved group controlling hematopoiesis, neurogenesis, and epithelial cell fate decisions. In zebrafish embryos, myb expression is strongly enriched in the aorta-gonad-mesonephros region, posterior blood island, and developing kidney marrow analogs where hematopoietic stem and progenitor cells emerge. A Zebrafish c-Myb antibody is suitable for research applications examining nuclear labeling in hematopoietic progenitors, lineage transitions, and the genetic frameworks that regulate early blood formation.

c-Myb plays a central role in transcriptional networks that stabilize progenitor identity and prevent premature differentiation. It directly regulates genes involved in cell cycle progression, anti-apoptotic signaling, and lineage-specific pathways. In zebrafish, c-Myb activity influences erythroid, myeloid, and lymphoid specification and is necessary for establishing the definitive hematopoietic system. Its regulatory interactions include co-factors such as p300, Cbp, and lineage-specific transcription factors that cooperate to orchestrate chromatin accessibility and transcriptional activation in hematopoietic tissues. This integration of proliferative signals and differentiation cues positions c-Myb as a master regulator of blood development.

Structurally, c-Myb features the highly conserved DNA binding domain consisting of three tandem repeats that recognize Myb response elements in target gene promoters. The protein also contains a transcriptional activation region and a C-terminal negative regulatory region that modulates stability and activity. Zebrafish myb maps to chromosome 12, with regulatory enhancers controlling expression in hemogenic endothelium and early hematopoietic stem cell niches. Co-localization studies detect c-Myb within nuclei of hematopoietic progenitors marked by runx1, gata2a, and markers of hemogenic endothelium, highlighting its involvement in the emergence and maintenance of stem and progenitor populations.

A Zebrafish c-Myb antibody is suitable for detecting c-Myb in developmental studies focused on hematopoietic stem cell formation, progenitor maintenance, erythroid and myeloid differentiation, and transcription factor hierarchies in Danio rerio. Its nuclear expression provides a clear readout of hematopoietic induction and commitment during embryonic and larval development. c-Myb contributes to blood cell homeostasis and regenerative hematopoiesis, making it valuable for examining genetic regulation of stem cell biology and lineage diversification. These features support research into transcriptional control of blood formation and early developmental patterning, 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 C-myb antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish C-myb recombinant protein (amino acids M1-I590) was used as the immunogen for the Zebrafish C-myb antibody.

Storage

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