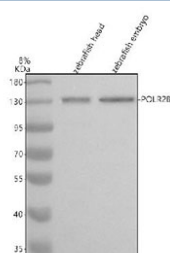


Zebrafish Polr2b Antibody / DNA-directed RNA polymerase subunit beta (RZ1273)

Catalog No.	Formulation	Size
RZ1273	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
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	A0A8M1N6S0
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish Polr2b antibody is available for research use only.



Western blot analysis of Polr2b protein using Zebrafish Polr2b antibody and 1) zebrafish head tissue lysates and 2) zebrafish embryo tissue lysates. Predicted molecular weight ~134 kDa.

Description

Polr2b (RNA polymerase II subunit beta) is a critical component of RNA polymerase II, the enzyme responsible for transcribing DNA into messenger RNA (mRNA) in eukaryotic cells. Polr2b is part of the RNA polymerase II complex, which is essential for the transcriptional regulation of protein-coding genes. As a subunit of RNA polymerase II, Polr2b is involved in transcription initiation, elongation, and termination, and it plays a vital role in maintaining genomic integrity and cellular function by ensuring the accurate transcription of genes.

In zebrafish, Polr2b is an ortholog of the human POLR2B gene. The zebrafish and human Polr2b proteins exhibit

significant sequence conservation, reflecting the evolutionary conservation of their functions in RNA transcription. This high degree of homology makes zebrafish an excellent model for studying the role of Polr2b in gene expression and transcription regulation across species.

Polr2b is ubiquitously expressed in zebrafish tissues, with particularly high expression levels in tissues such as the brain, heart, and muscle. These tissues rely heavily on the proper regulation of gene expression during development and cellular differentiation. Polr2b is essential for the transcription of protein-coding genes during early embryogenesis, as well as throughout the life cycle of the organism, playing a key role in the regulation of cellular growth, differentiation, and organ development.

Zebrafish Polr2b has isoforms, which may vary in their functional properties and tissue-specific expression. These isoforms could be involved in the fine-tuned regulation of transcription during different developmental stages or in response to environmental cues. Isoform diversity in Polr2b allows the protein to meet the specific transcriptional needs of different cell types, especially in tissues undergoing rapid differentiation or experiencing specific environmental stressors.

Application Notes

Optimal dilution of the Zebrafish Polr2b antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Polr2b recombinant protein (amino acids E49-Q1145) was used as the immunogen for the Zebrafish Polr2b antibody.

Storage

After reconstitution, the Zebrafish Polr2b antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.