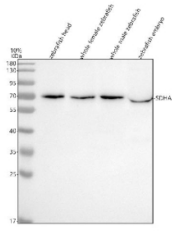
Zebrafish Sdha Antibody / Succinate dehydrogenase A (RZ1305)

Catalog No.	Formulation	Size
RZ1305	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	Q7ZVF3
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish Sdha antibody is available for research use only.



Western blot analysis of Sdha protein using Zebrafish Sdha antibody and 1) zebrafish head, 2) whole female zebrafish, 3) whole male zebrafish and 4) zebrafish embryo tissue lysate. Predicted molecular weight ~72 kDa.

Description

Zebrafish Sdha, also known as succinate dehydrogenase subunit A, is a key component of the mitochondrial respiratory chain complex II. Sdha is an essential flavoprotein that catalyzes the oxidation of succinate to fumarate within the tricarboxylic acid cycle while simultaneously transferring electrons to the electron transport chain. This dual role connects the TCA cycle to oxidative phosphorylation, making Sdha a critical enzyme for cellular energy production.

Zebrafish Sdha is an ortholog of the human SDHA protein and shares a high degree of sequence and functional conservation. In both species, Sdha functions as the catalytic subunit of succinate dehydrogenase and is required for efficient ATP generation. Mutations or disruptions in Sdha can impair mitochondrial function, leading to metabolic

disorders and contributing to pathologies such as cancer and neurodegeneration.

There is no evidence of multiple isoforms of zebrafish Sdha, and its structure and activity are highly conserved across vertebrates. The zebrafish model provides a valuable system for studying mitochondrial metabolism and diseases related to complex II dysfunction due to the evolutionary similarity to human SDHA.

Antibodies against zebrafish Sdha protein are widely used as mitochondrial markers and for studying metabolic pathways. These antibodies are suitable for applications such as western blot, immunohistochemistry, immunofluorescence, and ELISA, enabling the investigation of mitochondrial dynamics and energy metabolism in zebrafish tissues.

Application Notes

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

Immunogen

E. coli-derived zebrafish Sdha recombinant protein (amino acids D132-R551) was used as the immunogen for the Zebrafish Sdha antibody.

Storage

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