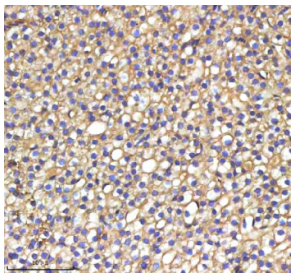
Zebrafish Srebf1 Antibody / Sterol regulatory element-binding protein 1 (RZ1315)

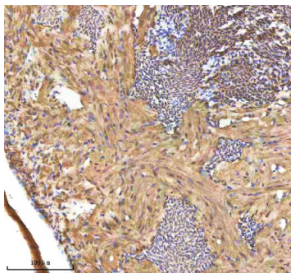
Catalog No.	Formulation	Size
RZ1315	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

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	A6XLD8
Localization	Cytoplasm (ER, Golgi, Vesicles), Nucleus
Applications	Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish Srebf1 antibody is available for research use only.



IHC staining of zebrafish Srebf1 protein using Zebrafish Srebf1 antibody, HRP-labeled secondary and DAB substrate. Srebf1 was detected in a paraffin-embedded section of zebrafish liver tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of zebrafish Srebf1 protein using Zebrafish Srebf1 antibody, HRP-labeled secondary and DAB substrate. Srebf1 was detected in a paraffin-embedded section of zebrafish heart tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Zebrafish Srebf1, also known as sterol regulatory element binding transcription factor 1, is a key regulator of lipid metabolism and homeostasis. Srebf1 is a transcription factor that controls the expression of genes involved in fatty acid, triglyceride, and cholesterol biosynthesis. By sensing lipid levels within the cell, Srebf1 activates metabolic pathways that ensure proper energy storage and membrane synthesis, which are essential during growth and development.

Zebrafish Srebf1 is an ortholog of the human SREBF1 protein, with strong sequence and functional conservation. Like its human counterpart, zebrafish Srebf1 is synthesized as an inactive precursor bound to the endoplasmic reticulum membrane. Upon sensing low sterol levels, the protein undergoes cleavage and translocation to the nucleus, where it binds sterol regulatory elements in target gene promoters to activate transcription.

The use of a Zebrafish Srebf1 antibody is valuable for detecting and analyzing the expression and processing of this protein in zebrafish tissues. Such antibodies are suitable for applications including western blot, immunohistochemistry, and immunofluorescence to study lipid metabolism and related regulatory pathways. A Zebrafish Srebf1 antibody can also be employed to monitor how dietary, genetic, or pharmacological factors influence lipid biosynthesis in zebrafish models.

There are currently no known isoforms of zebrafish Srebf1. The high degree of conservation between zebrafish and human Srebf1 makes this protein a relevant model for investigating metabolic disorders, including obesity, fatty liver disease, and cardiovascular disease. Using a high-quality Zebrafish Srebf1 antibody, researchers can explore conserved lipid regulatory mechanisms that have direct human health implications.

Application Notes

Optimal dilution of the Zebrafish Srebf1 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Srebf1 recombinant protein (amino acids H20-L1096) was used as the immunogen for the Zebrafish Srebf1 antibody.

Storage

After reconstitution, the Zebrafish Srebf1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.