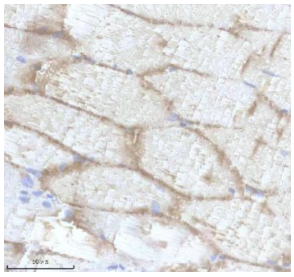
Zebrafish eEF1A Antibody / EEF1A1A/1B Antibody (RZ1458)

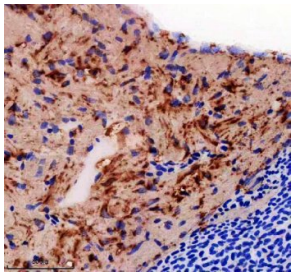
Catalog No.	Formulation	Size
RZ1458	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

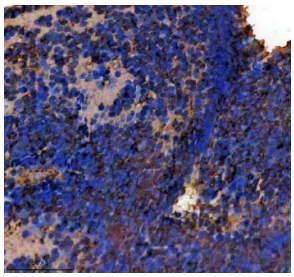
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/mL.
UniProt	Q6P969
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish eEF1A Antibody / EEF1A1A/1B Antibody is available for research use only.



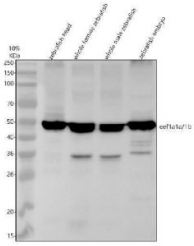
Zebrafish eEF1A Antibody Skeletal Muscle IHC. Immunohistochemistry analysis of EEF1A1A/1B using anti-EEF1A antibody. EEF1A1A/1B was detected in a paraffin-embedded section of zebrafish skeletal muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-EEF1A1A/1B Antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using DAB as the chromogen.



Zebrafish eEF1A Antibody Heart IHC. Immunohistochemistry analysis of EEF1A1A/1B using anti-EEF1A antibody. EEF1A1A/1B was detected in a paraffin-embedded section of zebrafish heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-EEF1A1A/1B Antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using DAB as the chromogen.



Zebrafish eEF1A Antibody Brain IHC. Immunohistochemistry analysis of EEF1A1A/1B using anti-EEF1A antibody. EEF1A1A/1B was detected in a paraffin-embedded section of zebrafish brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-EEF1A1A/1B Antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using DAB as the chromogen.



Zebrafish eEF1A Antibody WB. Western blot analysis of EEF1A1A/1B using anti-EEF1A antibody. Electrophoresis was performed on a 10% SDS-PAGE gel for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: zebrafish head tissue lysates, Lane 2: whole female zebrafish tissue lysates, Lane 3: whole male zebrafish tissue lysates, Lane 4: zebrafish embryo tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-EEF1A1A/1B antigen antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus WB. Western blotting Substrate with Tanon 5200 system. A specific band was detected for EEF1A1A/1B at approximately 50 kDa. The expected band size for EEF1A1A/1B is at 50 kDa.

Description

Zebrafish eEF1A Antibody / EEF1A1A/1B Antibody recognizes elongation factor 1 alpha proteins encoded by the eef1a1a and eef1a1b genes, two closely related zebrafish orthologs of human EEF1A1. eEF1A proteins are highly conserved GTP-binding factors that deliver aminoacyl-tRNAs to ribosomes during the elongation phase of protein synthesis. Because of their essential role in translation, eEF1A proteins are among the most abundant proteins in eukaryotic cells. Their importance in maintaining protein homeostasis and cellular viability has made zebrafish an important model for studying translational regulation and vertebrate development.

Zebrafish eEF1A Antibody / EEF1A1A/1B Antibody is useful for investigating tissues with high rates of proliferation and metabolic activity. Expression of eef1a1a and eef1a1b is widespread throughout embryonic and adult tissues, reflecting the universal requirement for protein synthesis. In addition to their canonical role in translation, eEF1A proteins participate in actin cytoskeleton organization, intracellular trafficking, and signal transduction pathways. Interactions with cytoskeletal elements help regulate cell morphology and migration, while stress-responsive mechanisms involving eEF1A contribute to cell survival and adaptation.

Numerous studies have demonstrated that eEF1A proteins possess functions extending beyond translation. They have been implicated in apoptosis, autophagy, oxidative stress responses, and regulation of viral replication. Many RNA viruses exploit eEF1A to facilitate genome replication and protein production. Altered expression of eEF1A proteins has also been associated with tumor progression and increased cellular proliferation. In zebrafish, eef1a1a and eef1a1b expression patterns provide insight into conserved mechanisms governing development, tissue maintenance, and cellular stress responses.

Zebrafish eEF1A Antibody / EEF1A1A/1B Antibody is a valuable tool for studies of protein synthesis, translational control, cellular metabolism, and vertebrate development. Zebrafish eEF1A Antibody / EEF1A1A/1B Antibody also supports investigations of stress responses, cytoskeletal dynamics, viral infection, and mechanisms regulating cell growth and survival. The broad and conserved expression of eEF1A proteins makes Zebrafish eEF1A Antibody / EEF1A1A/1B Antibody particularly useful for characterizing normal physiology and disease processes in zebrafish tissues and embryos.

Explore our EEF1A1/2 Antibody / Translation Elongation Factor Antibody for additional information on these highly

conserved regulators of protein synthesis, cellular homeostasis, and cytoskeletal dynamics.

This Zebrafish antibody is part of a broader Zebrafish / Danio rerio antibody panel offered by NSJ Bioreagents.

Application Notes

The optimal working dilution of the Zebrafish eEF1A Antibody / EEF1A1A/1B Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish EEF1A1A/1B recombinant protein (amino acids S157-K462) was used as the immunogen for the Zebrafish eEF1A Antibody.

Storage

After reconstitution, the Zebrafish eEF1A 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

Zebrafish eEF1A antibody, Zebrafish EEF1A1A/1B antibody, Zebrafish Elongation Factor 1 Alpha antibody, Zebrafish Translation Elongation Factor antibody, Zebrafish EF-1 Alpha antibody, Zebrafish Protein Synthesis Factor antibody