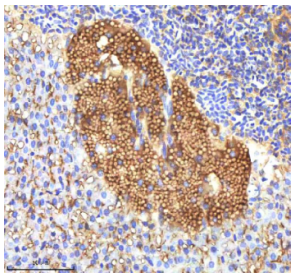
Zebrafish Igf1 Antibody / Insulin like growth factor 1 (RZ1230)

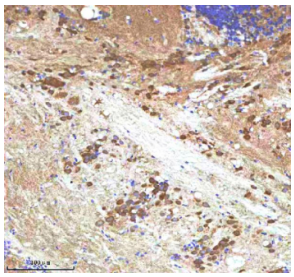
Catalog No.	Formulation	Size
RZ1230	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

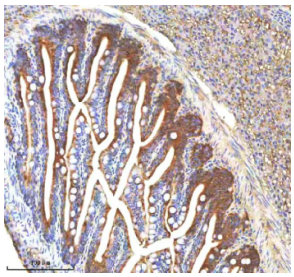
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q90VV9
Applications	Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish Insulin like growth factor 1 / Igf1 antibody is available for research use only.



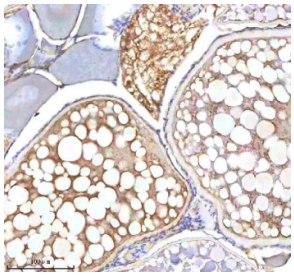
Zebrafish Igf1 Antibody Pancreas Tissue IHC. Immunohistochemistry staining of zebrafish Insulin like growth factor 1 protein using Zebrafish Insulin like growth factor 1 antibody, HRP-labeled secondary and DAB substrate. Igf1 was detected in a paraffin-embedded section of zebrafish pancreas tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



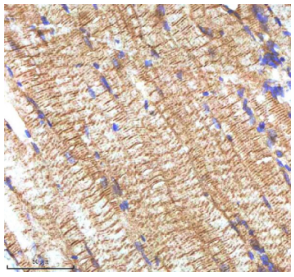
Zebrafish Igf1 Antibody Brain Tissue IHC. Immunohistochemistry staining of zebrafish Insulin like growth factor 1 protein using Zebrafish Insulin like growth factor 1 antibody, HRP-labeled secondary and DAB substrate. Igf1 was detected in a paraffin-embedded section of zebrafish brain tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Igf1 Antibody Colon Tissue IHC. Immunohistochemistry staining of zebrafish Insulin like growth factor 1 protein using Zebrafish Insulin like growth factor 1 antibody, HRP-labeled secondary and DAB substrate. Igf1 was detected in a paraffin-embedded section of zebrafish colon tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Igf1 Antibody Ovary Tissue IHC. Immunohistochemistry staining of zebrafish Insulin like growth factor 1 protein using Zebrafish Insulin like growth factor 1 antibody, HRP-labeled secondary and DAB substrate. Igf1 was detected in a paraffin-embedded section of zebrafish ovary tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Igf1 Antibody Muscle Tissue IHC. Immunohistochemistry staining of zebrafish Insulin like growth factor 1 protein using Zebrafish Insulin like growth factor 1 antibody, HRP-labeled secondary and DAB substrate. Igf1 was detected in a paraffin-embedded section of zebrafish muscle tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Zebrafish Igf1 antibody targets insulin-like growth factor 1 Igf1, a secreted peptide hormone essential for growth regulation, metabolic control, tissue differentiation, and developmental signaling in Danio rerio. Zebrafish, also known as Danio rerio, express igf1 primarily in the liver and in select extrahepatic tissues where it functions as a central mediator of somatic growth downstream of growth hormone. Igf1 localizes to the extracellular space and circulatory system, engaging Igf receptors to activate intracellular signaling pathways that regulate proliferation, survival, and metabolic activity across developing organs.

Igf1 belongs to the insulin-like growth factor family of peptides characterized by conserved cysteine-rich domains and structural similarity to proinsulin. In zebrafish embryos and larvae, igf1 expression supports growth during rapid developmental expansion, influencing skeletal formation, muscle differentiation, and metabolic programming. A Zebrafish Igf1 antibody is suitable for detecting secreted or pericellular Igf1 in studies examining hormone-regulated growth, organogenesis, and systemic metabolic pathways in early development.

Functionally, Igf1 is a major effector of the growth hormone/IGF axis. Binding of Igf1 to Igf1r activates downstream pathways including PI3K-Akt, MAPK, and mTOR, promoting cell survival, protein synthesis, glucose utilization, and anabolic growth. In zebrafish, these signaling events control somatic growth rate, muscle fiber hypertrophy, craniofacial development, and tissue maintenance. Igf1 also influences neural development by modulating neuronal survival and axonal growth. During larval stages, Igf1 contributes to skeletal mineralization and muscle patterning while supporting metabolic changes as embryos transition from yolk-derived nutrition to exogenous feeding.

Igf1 additionally participates in stress responses and regenerative processes. In zebrafish heart regeneration, Igf1 signaling promotes cardiomyocyte proliferation and tissue repair. In metabolic studies, igf1 expression reflects nutritional status, endocrine feedback control, and environmental perturbations such as fasting, toxicant exposure, or temperature shifts. Because zebrafish exhibit strong growth plasticity, Igf1 serves as a key indicator of endocrine and metabolic state across developmental and experimental contexts.

Structurally, zebrafish Igf1 consists of B, C, A, and D domains arranged similarly to mammalian IGF1, stabilized by disulfide bonds that support receptor binding. The igf1 gene maps to chromosome 15, with regulatory elements responsive to growth hormone levels and metabolic cues. Co-localization and expression studies often detect Igf1 in liver tissue, skeletal muscle, craniofacial mesenchyme, and developing visceral organs, often overlapping with markers of growth and anabolic signaling such as Igf1r, Akt, and mTOR pathway components.

A Zebrafish Igf1 antibody is suitable for detecting Igf1 in research focused on growth regulation, endocrine signaling, metabolism, tissue regeneration, and developmental physiology in Danio rerio. Its extracellular and circulating presence allows researchers to assess systemic growth factor activity and map hormone-responsive tissues. Igf1 expression is widely used to evaluate growth hormone signaling, analyze metabolic disorders, study nutrient-dependent growth variation, and investigate regeneration-related pathways in zebrafish. These features make this antibody valuable for studies in developmental endocrinology, growth biology, and vertebrate metabolic regulation, and it is supplied for research use by NSJ Bioreagents.

For an alternative IGF1 reagent with western blot, immunofluorescence, flow cytometry, and tissue-based validation, see our IGF1 Antibody / Somatomedin C Antibody page.

This Zebrafish Igf1 / insulin-like growth factor 1 antibody page is part of a broader Zebrafish/Danio rerio antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Zebrafish Insulin like growth factor 1 / Igf1 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Insulin like growth factor 1 (Igf1) recombinant protein (amino acids G45-M161) was used as the immunogen for the Zebrafish Insulin like growth factor 1 / Igf1 antibody.

Storage

After reconstitution, the Zebrafish Insulin like growth factor 1 / Igf1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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