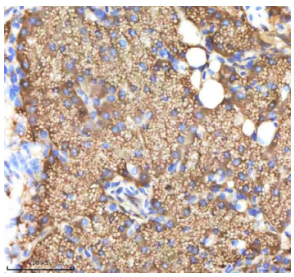
Zebrafish Ndr1 Antibody / Nodal-related 1 (RZ1247)

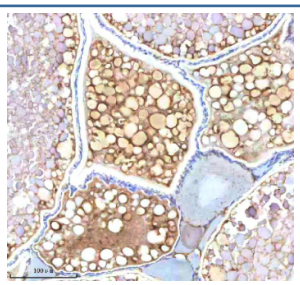
Catalog No.	Formulation	Size
RZ1247	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

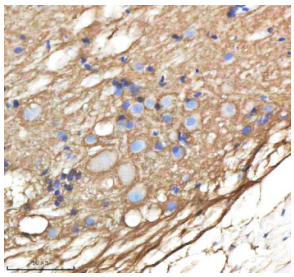
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O13144
Applications	Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish Ndr1 antibody is available for research use only.



IHC staining of zebrafish Ndr1 protein using Zebrafish Ndr1 antibody, HRP-labeled secondary and DAB substrate. Ndr1 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.



IHC staining of zebrafish Ndr1 protein using Zebrafish Ndr1 antibody, HRP-labeled secondary and DAB substrate. Ndr1 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.



IHC staining of zebrafish Ndr1 protein using Zebrafish Ndr1 antibody, HRP-labeled secondary and DAB substrate. Ndr1 was detected in a paraffin-embedded section of zebrafish spinal cord tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Nodal related 1, also known as Squint and Ndr1, is a member of the transforming growth factor beta superfamily and plays a key role in early embryonic development in zebrafish. It is involved in the establishment of the body axis, mesoderm and endoderm formation, and the specification of left right asymmetry. Nodal related 1 functions as a secreted signaling molecule that activates intracellular pathways through binding to type one and type two serine threonine kinase receptors.

Zebrafish Nodal related 1 is considered a functional homolog of human NODAL, although it is not a direct one to one ortholog due to lineage specific gene duplications in teleost fish. However, both proteins are part of the same signaling pathway and perform highly conserved roles in vertebrate embryogenesis. Like human NODAL, zebrafish Nodal related 1 signals through the SMAD family of transcription factors and is regulated by feedback mechanisms involving antagonists such as Lefty and Cerberus.

Expression of Nodal related 1 begins during the blastula stage and becomes concentrated in the embryonic margin, where it helps induce and pattern the mesendoderm. Mutations or knockdown of this gene result in severe defects in gastrulation, germ layer formation, and organ development. Due to its essential role in vertebrate development and strong functional conservation, zebrafish Nodal related 1 is widely studied in developmental biology, cell signaling, and disease modeling.

Application Notes

Optimal dilution of the Zebrafish Ndr1 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Ndr1 recombinant protein (amino acids Q28-D296) was used as the immunogen for the Zebrafish Ndr1 antibody.

Storage

After reconstitution, the Zebrafish Ndr1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.