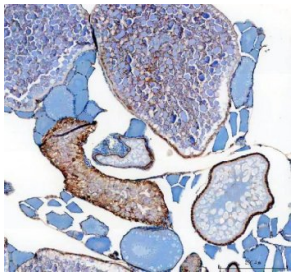
Zebrafish GDF9 Antibody / Growth Differentiation Factor 9 Antibody (RZ1448)

Catalog No.	Formulation	Size
RZ1448	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	Q5MD90
Applications	Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish GDF9 Antibody / Growth Differentiation Factor 9 Antibody is available for research use only.



Zebrafish GDF9 Antibody Ovary IHC. Immunohistochemical analysis of GDF9 expression using anti-GDF9 antibody in paraffin embedded zebrafish ovary tissue. GDF9, also known as Growth Differentiation Factor 9, is an oocyte derived member of the transforming growth factor beta superfamily that regulates folliculogenesis and female fertility. Prominent staining is observed in developing ovarian follicles and oocyte associated structures, consistent with the established role of GDF9 in coordinating communication between oocytes and surrounding follicular cells. Heat mediated antigen retrieval was performed in EDTA buffer prior to staining. Sections were blocked with 10 percent goat serum and incubated with GDF9 antibody at 2 ug/ml overnight at 4 degrees Celsius. Detection was achieved using a peroxidase conjugated goat anti rabbit IgG secondary antibody and DAB chromogen. These results support the utility of Zebrafish GDF9 Antibody for studies of oogenesis, ovarian development, and reproductive biology.

Description

Zebrafish GDF9 Antibody / Growth Differentiation Factor 9 Antibody recognizes GDF9, a secreted member of the transforming growth factor beta superfamily that plays essential roles in ovarian development and reproductive function. GDF9 is synthesized primarily by oocytes and acts through paracrine signaling to regulate folliculogenesis, granulosa cell

proliferation, and maturation of surrounding somatic cells. Following proteolytic processing, mature GDF9 forms biologically active dimers that activate signaling pathways involved in cellular differentiation and tissue growth.

In zebrafish, GDF9 contributes to ovarian follicle development and female fertility by coordinating communication between developing oocytes and neighboring follicular cells. This signaling promotes proper growth and maturation of reproductive tissues and helps ensure successful gametogenesis. Like its mammalian counterpart, zebrafish GDF9 is highly conserved and belongs to a broader network of transforming growth factor beta family proteins involved in development and cell fate determination. Because of the accessibility and genetic tractability of zebrafish, this model organism provides a valuable system for investigating reproductive biology and ovarian function.

Because GDF9 functions together with other transforming growth factor beta family members, particularly BMP15, it is considered a key regulator of follicle maturation and oocyte quality. Altered GDF9 signaling has been associated with impaired fertility, abnormal folliculogenesis, and reduced reproductive success in vertebrates. Zebrafish provide a useful model for investigating conserved mechanisms controlling germ cell development and ovarian physiology. Consequently, Zebrafish GDF9 Antibody / Growth Differentiation Factor 9 Antibody is valuable for studies of oogenesis, reproductive endocrinology, developmental biology, and fertility related disorders.

Zebrafish GDF9 Antibody / Growth Differentiation Factor 9 Antibody is useful for studies of oogenesis, folliculogenesis, reproductive endocrinology, and developmental biology. Altered GDF9 signaling has been associated with impaired fertility and abnormal ovarian development in vertebrates, highlighting its importance in reproductive health. Owing to its conserved biological functions and restricted expression pattern, GDF9 serves as an important marker for investigations of germ cell maturation and ovarian physiology in zebrafish.

For studies involving ovarian follicle development, oocyte-derived signaling, and reproductive endocrine regulation, see our GDF9 Antibody / Ovarian Follicle Development Marker.

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 GDF9 Antibody / Growth Differentiation Factor 9 Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish GDF9 recombinant protein (amino acids T295-R418) was used as the immunogen for the Zebrafish GDF9 Antibody.

Storage

After reconstitution, the Zebrafish GDF9 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 Growth Differentiation Factor 9 Antibody, Zebrafish GDF-9 Antibody, Zebrafish BMP15 Related Growth Factor Antibody, Zebrafish Oocyte Growth Factor Antibody, Zebrafish TGFB Superfamily Protein Antibody, Zebrafish Ovarian Growth Factor Antibody

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