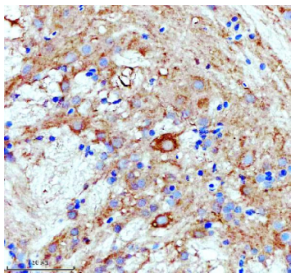
Zebrafish Luteinizing hormone beta Antibody / Lhb (RZ1179)

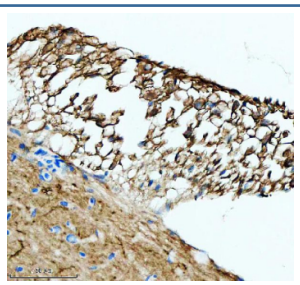
Catalog No.	Formulation	Size
RZ1179	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

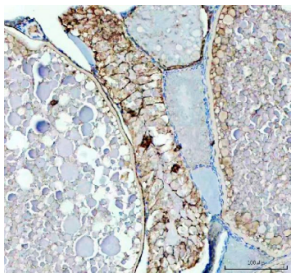
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q6TCF5
Applications	Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish Luteinizing hormone beta antibody is available for research use only.



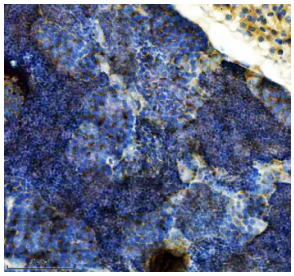
Zebrafish Luteinizing hormone beta / Lhb Antibody Hypothalamus IHC. Immunohistochemistry staining of zebrafish Luteinizing hormone beta protein using Zebrafish Luteinizing hormone beta antibody, HRP-labeled secondary and DAB substrate. Luteinizing hormone beta was detected in a paraffin-embedded section of zebrafish hypothalamus tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



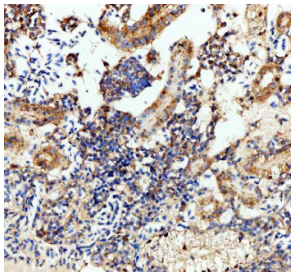
Zebrafish Luteinizing hormone beta / Lhb Antibody Hypophysis IHC. Immunohistochemistry staining of zebrafish Luteinizing hormone beta protein using Zebrafish Luteinizing hormone beta antibody, HRP-labeled secondary and DAB substrate. Luteinizing hormone beta was detected in a paraffin-embedded section of zebrafish hypophysis tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Luteinizing hormone beta / Lhb Antibody Ovary IHC. Immunohistochemistry staining of zebrafish Luteinizing hormone beta protein using Zebrafish Luteinizing hormone beta antibody, HRP-labeled secondary and DAB substrate. Luteinizing hormone beta 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 Luteinizing hormone beta / Lhb Antibody Testis IHC. Immunohistochemistry staining of zebrafish Luteinizing hormone beta protein using Zebrafish Luteinizing hormone beta antibody, HRP-labeled secondary and DAB substrate. Luteinizing hormone beta was detected in a paraffin-embedded section of zebrafish testis tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Luteinizing hormone beta / Lhb Antibody Kidney IHC. Immunohistochemistry staining of zebrafish Luteinizing hormone beta protein using Zebrafish Luteinizing hormone beta antibody, HRP-labeled secondary and DAB substrate. Luteinizing hormone beta was detected in a paraffin-embedded section of zebrafish kidney tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Zebrafish (Danio rerio) Luteinizing hormone beta antibody detects the beta subunit of luteinizing hormone, a core component of the gonadotropin hormone complex produced by the anterior pituitary. Encoded in zebrafish by the lhb gene, Lhb combines with the common alpha subunit to form functional luteinizing hormone, a key regulator of vertebrate reproductive development, steroidogenesis, and gametogenesis. Because the beta subunit provides receptor specificity and is tightly regulated during reproductive maturation, Zebrafish Luteinizing hormone beta antibody reagents support research in endocrine signaling, hypothalamic-pituitary-gonadal axis development, and reproductive physiology.

During zebrafish development, lhb expression begins in the pituitary as the endocrine system differentiates from Rathke's pouch derivatives. Lhb is produced by gonadotrope cells, which integrate signals from hypothalamic gonadotropin-releasing hormone (GnRH) neurons and feedback from gonadal hormones. As zebrafish mature, Lhb becomes increasingly important for coordinating steroid hormone production, ovary and testis maturation, and reproductive cyclicity. Because the pituitary-gonadal axis is highly conserved across vertebrates, studies in zebrafish using Zebrafish Luteinizing hormone beta antibody provide insights relevant to reproductive biology in higher organisms.

Lhb plays a central role in stimulating gonadal steroidogenesis. In females, luteinizing hormone triggers oocyte maturation, follicle rupture, and ovulation through activation of luteinizing hormone receptors in the ovary. In males, Lhb drives Leydig cell production of androgens required for spermatogenesis and secondary sex characteristics. These processes depend on dynamic transcriptional and endocrine feedback loops that tightly regulate lhb expression, making it a sensitive marker of reproductive state and hypothalamic-pituitary signaling.

In zebrafish, Lhb also contributes to early endocrine patterning by establishing the functional architecture of the pituitary gland. Its expression parallels that of other adenohypophyseal hormones and serves as a molecular indicator of pituitary organization. Environmental conditions such as photoperiod, temperature, and nutritional state influence lhb expression, making Lhb an important readout for studies examining environmental modulation of reproductive timing.

At the molecular level, Lhb is a glycoprotein hormone subunit characterized by conserved cysteine residues that form disulfide bonds essential for correct folding and assembly with the alpha subunit. Lhb secretion is stimulated by GnRH binding to pituitary receptors, which activate intracellular signaling cascades involving calcium, MAPK pathways, and transcriptional regulators that enhance lhb gene expression. Subcellular localization occurs in secretory granules of gonadotrope cells, where Lhb is stored prior to release into circulation.

Zebrafish models have demonstrated that disruption of lhb affects fertility, gonadal development, and sexual maturation, confirming its essential role in vertebrate reproductive biology. Because endocrine pathways are highly conserved, zebrafish studies contribute to understanding reproductive disorders, environmental endocrine disruption, and hormonal regulation in broader physiological contexts.

A Zebrafish Luteinizing hormone beta antibody is suitable for research applications such as western blotting, immunohistochemistry, and assays examining pituitary function, reproductive development, steroidogenic signaling, and endocrine regulation. This antibody targets Lhb for studies involving the hypothalamic-pituitary-gonadal axis and vertebrate reproductive maturation. NSJ Bioreagents provides the Zebrafish Luteinizing hormone beta antibody to support research in developmental endocrinology.

Explore our Luteinizing Hormone beta Antibody SPM103 for additional research tools targeting LHB and investigating pituitary gonadotroph differentiation and reproductive endocrine function.

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

Application Notes

Optimal dilution of the Zebrafish Luteinizing hormone beta antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Luteinizing hormone beta recombinant protein (amino acids L24-Y140) was used as the immunogen for the Zebrafish Luteinizing hormone beta antibody.

Storage

After reconstitution, the Zebrafish Luteinizing hormone beta 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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