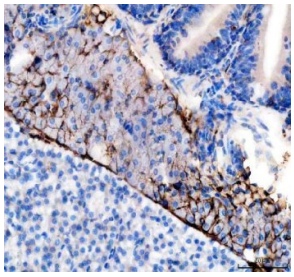
# Zebrafish Vitellogenin 2 Antibody / VTG2 Antibody (RZ1365)

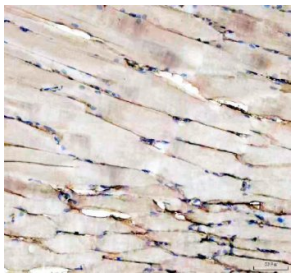
| Catalog No. | Formulation | Size |
|---|---|---|
| RZ1365 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

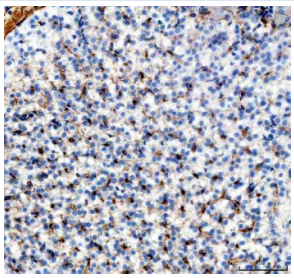
| | |
|---|---|
| **Species Reactivity** | Zebrafish |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit Ig |
| **Buffer** | Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/mL. |
| **UniProt** | Q1MTC4 |
| **Applications** | Immunohistochemistry (FFPE): 2-5ug/ml |
| **Limitations** | This Zebrafish Vitellogenin 2 Antibody / VTG2 Antibody is available for research use only. |



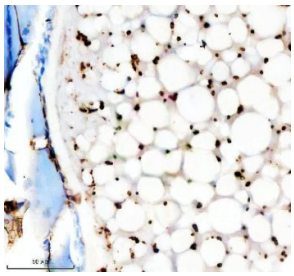
Zebrafish Vitellogenin 2 / VTG2 Antibody Pancreas IHC. Immunohistochemistry staining of FFPE zebrafish pancreas tissue using Zebrafish Vitellogenin 2 Antibody demonstrates distinct membranous and cytoplasmic HRP-DAB brown staining within clustered pancreatic epithelial cell populations. The staining pattern is consistent with expression of Vitellogenin 2 (VTG2), a large lipid-binding yolk precursor protein involved in nutrient transport, reproductive physiology, and estrogen-responsive signaling pathways. The observed immunoreactivity highlights discrete cellular populations within the pancreatic tissue and is consistent with the broad physiological functions of vitellogenin family proteins in vertebrate metabolism, nutrient mobilization, and developmental biology. Heat mediated antigen retrieval was performed in EDTA buffer. Primary antibody was incubated overnight at 4Â°C followed by detection using a peroxidase-conjugated goat anti-rabbit secondary antibody and DAB chromogen.



Zebrafish Vitellogenin 2 / VTG2 Antibody Skeletal Muscle IHC. Immunohistochemistry staining of FFPE zebrafish skeletal muscle tissue using Zebrafish Vitellogenin 2 Antibody demonstrates weak to moderate HRP-DAB brown staining associated with elongated muscle fibers and interstitial cellular elements. The staining pattern is consistent with expression of Vitellogenin 2 (VTG2), a lipid-binding yolk precursor protein involved in nutrient transport, reproductive physiology, and estrogen-responsive biological processes. Although vitellogenins are classically associated with hepatic synthesis and oocyte development, detection in additional tissue compartments may reflect broader physiological roles in nutrient mobilization and metabolic regulation. Heat mediated antigen retrieval was performed in EDTA buffer. Primary antibody was incubated overnight at 4Â°C followed by detection using a peroxidase-conjugated goat anti-rabbit secondary antibody and DAB chromogen.



Zebrafish Vitellogenin 2 / VTG2 Antibody Liver IHC. Immunohistochemistry staining of FFPE zebrafish liver tissue using Zebrafish Vitellogenin 2 Antibody demonstrates widespread granular cytoplasmic HRP-DAB brown staining throughout hepatocyte populations. The staining pattern is consistent with expression of Vitellogenin 2 (VTG2), a major yolk precursor protein synthesized primarily in the liver under estrogen-responsive regulation and subsequently transported to developing oocytes. Hepatic localization is consistent with the established biological role of vitellogenins in nutrient transport, reproductive physiology, embryonic nutrition, and endocrine-regulated metabolic processes. The widespread hepatocellular staining observed in this section supports the liver as a principal site of VTG2 production in zebrafish. Heat mediated antigen retrieval was performed in EDTA buffer. Primary antibody was incubated overnight at 4Â°C followed by detection using a peroxidase-conjugated goat anti-rabbit secondary antibody and DAB chromogen.



Zebrafish Vitellogenin 2 / VTG2 Antibody Ovary IHC. Immunohistochemistry staining of FFPE zebrafish ovary tissue using Zebrafish Vitellogenin 2 Antibody demonstrates distinct cytoplasmic HRP-DAB brown staining associated with developing oocyte-containing structures and surrounding ovarian tissue. The staining pattern is consistent with expression and accumulation of Vitellogenin 2 (VTG2), a major yolk precursor protein that provides essential lipids, amino acids, and nutrients required for oocyte maturation and early embryonic development. Ovarian localization is consistent with the established role of VTG2 in reproductive physiology, vitellogenesis, and estrogen-regulated nutrient transport during oogenesis. Heat mediated antigen retrieval was performed in EDTA buffer. Primary antibody was incubated overnight at 4Â°C followed by detection using a peroxidase-conjugated goat anti-rabbit secondary antibody and DAB chromogen.

## Description

Zebrafish Vitellogenin 2 Antibody / VTG2 Antibody recognizes Vitellogenin 2 (VTG2), a yolk precursor protein that plays a critical role in oocyte maturation, embryonic nutrition, and reproductive physiology. Vitellogenins are large lipid-binding phosphoglycoproteins synthesized primarily in the liver under estrogen regulation and subsequently transported through the circulation to developing oocytes. Following uptake into maturing eggs, vitellogenins are processed into yolk proteins that provide essential nutrients required for embryonic growth and early development. Because vitellogenin production is closely linked to reproductive status and endocrine signaling, VTG2 serves as an important marker in reproductive biology and aquatic toxicology studies.

In zebrafish, VTG2 expression is strongly influenced by estrogen signaling pathways and reproductive activity. Female fish typically exhibit robust vitellogenin production during oocyte development, while expression in males is normally limited. Consequently, VTG2 is widely used as a biomarker for endocrine regulation, reproductive maturation, and exposure to estrogenic compounds. Researchers frequently evaluate VTG2 expression when investigating reproductive

physiology, environmental toxicology, endocrine disruption, and developmental biology.

Vitellogenin proteins function as major nutrient reservoirs that support embryo development prior to independent feeding. In addition to providing amino acids, lipids, phosphates, and other nutrients, vitellogenins contribute to processes that influence egg quality and reproductive success. Because reproductive performance is closely tied to vitellogenin synthesis and deposition, VTG2 remains an important target in studies of fertility, developmental biology, and aquatic organism health.

Zebrafish provide an excellent model for investigating reproductive biology because of their rapid development, high fecundity, and well-characterized endocrine signaling pathways. Investigators commonly monitor VTG2 expression during studies of oogenesis, endocrine regulation, environmental monitoring, reproductive toxicology, and developmental physiology. The conservation of many reproductive signaling mechanisms among vertebrates makes zebrafish a valuable model for understanding broader aspects of reproductive function and endocrine biology.

At NSJ Bioreagents, we provide highly validated antibodies for reproductive biology, developmental biology, endocrinology, toxicology, and zebrafish research. Zebrafish Vitellogenin 2 Antibody / VTG2 Antibody targets a major yolk precursor protein involved in oocyte development and reproductive regulation. VTG2 expression is widely studied in the context of estrogen signaling, reproductive physiology, endocrine disruption, embryonic nutrition, and aquatic toxicology. Continued investigation of vitellogenin biology is expanding our understanding of reproductive function and developmental processes in vertebrate organisms.

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 Vitellogenin 2 Antibody / VTG2 Antibody should be determined empirically by the investigator.

## Immunogen

An E.coli-derived Zebrafish VTG2 recombinant protein (amino acids Q44-K855) was used as the immunogen for the Zebrafish VTG2 Antibody.

## Storage

After reconstitution, the Zebrafish VTG2 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 VTG2 Antibody, Zebrafish Vitellogenin 2 Antibody, Zebrafish Egg Yolk Precursor Protein Antibody, Zebrafish Reproductive Biomarker Antibody, Zebrafish Estrogen Responsive Protein Antibody, Zebrafish Oocyte Development Protein Antibody


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