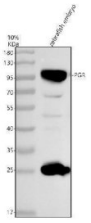
Zebrafish Progesterone Receptor Antibody / PGR Antibody (RZ1347)

Catalog No.	Formulation	Size
RZ1347	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	C9V3N7
RRID	AB_3758520
Applications	Western blot: 0.5-1ug/ml
Limitations	This Zebrafish Progesterone Receptor Antibody is available for research use only.



Zebrafish Progesterone Receptor Antibody WB Analysis of Zebrafish Embryo Lysate. Western blot analysis of zebrafish embryo lysate using PGR Antibody at 0.5 ug/ml, with 30 ug of protein loaded under reducing conditions. An immunoreactive band is observed near 100 kDa. Published studies have reported full-length zebrafish PGR at approximately 69 kDa.

Description

Zebrafish Progesterone Receptor Antibody / PGR Antibody targets progesterone receptor (PGR), a ligand-activated transcription factor belonging to the nuclear receptor superfamily. PGR mediates cellular responses to progesterone and related progestins, regulating gene expression programs involved in reproductive physiology, ovarian function, and developmental signaling. The receptor contains a conserved DNA-binding domain, a ligand-binding domain, and regulatory regions that interact with transcriptional cofactors. These structural features allow PGR to translate hormonal signals into changes in gene expression.

In zebrafish (Danio rerio), progesterone receptor signaling contributes to reproductive processes, particularly ovarian follicle development and ovulation. Progestin signaling coordinates molecular events associated with follicular maturation and the release of mature oocytes. PGR participates in the regulation of genes involved in follicular rupture, extracellular matrix remodeling, and reproductive tissue responses to hormonal stimulation. Its activity is therefore associated with endocrine mechanisms controlling successful reproduction.

Following ligand binding, PGR undergoes conformational changes that influence receptor interactions with transcriptional coregulators and other signaling proteins. Activated PGR can associate with specific DNA regulatory elements to modulate transcription of hormone-responsive genes. Receptor activity is also influenced by phosphorylation and interactions with other transcription factors, allowing progesterone signaling to integrate with broader cellular regulatory networks.

Although PGR is best characterized for its reproductive functions, progesterone receptor signaling has also been investigated in the nervous system and other tissues. The receptor contributes to the broader network of steroid hormone signaling that coordinates physiological responses to endocrine changes. Comparative studies of PGR provide insight into the evolutionary conservation of nuclear receptor structure and function across vertebrates, while also revealing species-specific differences in reproductive regulation.

Zebrafish Progesterone Receptor Antibody supports investigations into PGR protein expression and its relationship to steroid hormone signaling, ovarian physiology, and reproductive development. Understanding how progesterone receptor abundance and activity change during reproductive maturation may help clarify the molecular mechanisms controlling ovulation and hormone-dependent transcription. Zebrafish provides a useful vertebrate model for examining these processes and their connections to conserved endocrine signaling pathways.

Application Notes

The optimal working dilution of the Zebrafish Progesterone Receptor Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish PR/PGR recombinant protein (amino acids K71-K586) was used as the immunogen for the Zebrafish Progesterone Receptor Antibody.

Storage

After reconstitution, the Zebrafish Progesterone Receptor 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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