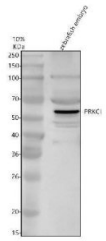
Zebrafish PRKCI Antibody / PKC Iota Antibody (RZ1470)

Catalog No.	Formulation	Size
RZ1470	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	Q90XF2
Applications	Western blot: 0.5-1ug/ml
Limitations	This Zebrafish PRKCI Antibody / PKC Iota Antibody is available for research use only.



Zebrafish PRKCI Antibody / PKC Iota Antibody Zebrafish Embryo WB: Western blot analysis of zebrafish embryo tissue lysate using Zebrafish PRKCI Antibody / PKC Iota Antibody. Proteins were separated on a 10% SDS-PAGE gel under reducing conditions and transferred to a nitrocellulose membrane. A distinct immunoreactive band is detected at approximately 67 kDa, consistent with the predicted molecular weight of zebrafish PRKCI (PKC iota), demonstrating specific target recognition. The membrane was blocked with 5% non-fat milk prior to incubation with the primary antibody (0.5 ug/ml) overnight at 4Â°C, followed by an HRP-conjugated goat anti-rabbit secondary antibody and ECL detection.

Description

Zebrafish PRKCI Antibody / PKC Iota Antibody recognizes protein kinase C iota (PRKCI), an atypical member of the protein kinase C family that functions independently of calcium and diacylglycerol. Unlike conventional and novel PKC isoforms, PRKCI is regulated through protein-protein interactions and phosphorylation, allowing it to participate in signaling pathways that control cell polarity, proliferation, differentiation, migration, and survival. Because these pathways are highly conserved between zebrafish and mammals, zebrafish provides an excellent model for investigating PRKCI function during embryonic development and tissue homeostasis.

During zebrafish embryogenesis, PRKCI plays a central role in establishing apical-basal polarity within epithelial tissues

and contributes to the formation of organized cell layers. It is an important component of the PAR polarity complex together with PAR3 and PAR6, helping direct asymmetric cell division, epithelial junction formation, and coordinated tissue morphogenesis. Loss or disruption of PRKCI activity has been associated with defects in neural tube organization, retinal development, and other epithelial structures, highlighting its importance in early vertebrate development. Zebrafish PRKCI Antibody is therefore well suited for studies examining embryonic polarity, organogenesis, and developmental signaling.

PRKCI also functions downstream of multiple signaling pathways involved in growth factor responses and cellular stress. Through interactions with signaling proteins including phosphoinositide 3-kinase and AKT pathway components, PRKCI regulates cytoskeletal remodeling, directed cell migration, and cell survival. These functions make zebrafish an attractive model for studying wound repair, regeneration, angiogenesis, and cancer-related signaling. Because many PRKCI-dependent pathways are evolutionarily conserved, experimental findings in zebrafish frequently provide insight into corresponding mechanisms in human biology and disease.

Beyond developmental biology, PRKCI has become an important target in research on tumor progression, stem cell biology, and epithelial integrity. Altered PRKCI expression or activity has been reported in numerous human cancers, where it may promote abnormal proliferation, invasion, and resistance to apoptosis. Investigators also use zebrafish to examine how atypical PKC signaling influences immune responses, neuronal development, and tissue regeneration following injury. As a result, Zebrafish PRKCI Antibody is a valuable research tool for immunohistochemistry, immunofluorescence, western blotting, and other applications aimed at characterizing PRKCI expression and localization throughout zebrafish development and disease models.

Learn more about PRKCI biology, signaling functions, and additional validated products on our PRKCI Antibody page.

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 PRKCI Antibody / PKC Iota Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish PKC Iota/PRKCI recombinant protein (amino acids M1-Q547) was used as the immunogen for the Zebrafish PKC Iota Antibody.

Storage

After reconstitution, the Zebrafish PKC Iota 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 PRKCI antibody, Zebrafish PKC iota antibody, Zebrafish Protein Kinase C Iota antibody, Zebrafish Atypical Protein Kinase C antibody, Zebrafish aPKC antibody, Zebrafish Protein Kinase C Lambda/Iota antibody

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