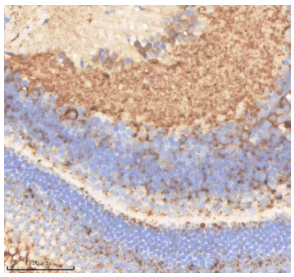
Zebrafish Pard3aa Antibody / Partitioning defective 3 (RZ1263)

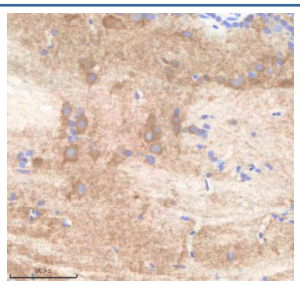
Catalog No.	Formulation	Size
RZ1263	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

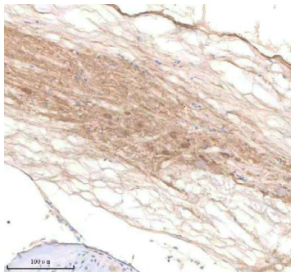
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	A0A8M6YY70
Localization	Cytoplasm, cell membrane, cell junctions (human similarity)
Applications	Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish Pard3aa antibody is available for research use only.



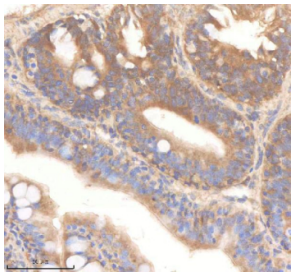
Zebrafish Pard3aa Antibody Eye Tissue IHC. Immunohistochemistry staining of zebrafish Pard3aa protein using Zebrafish Pard3aa antibody, HRP-labeled secondary and DAB substrate. Pard3aa was detected in a paraffin-embedded section of zebrafish eye tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



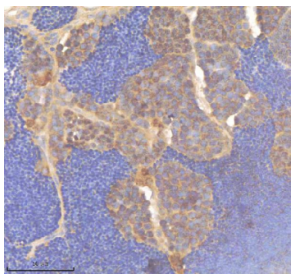
Zebrafish Pard3aa Antibody Brain Tissue IHC. Immunohistochemistry staining of zebrafish Pard3aa protein using Zebrafish Pard3aa antibody, HRP-labeled secondary and DAB substrate. Pard3aa was detected in a paraffin-embedded section of zebrafish brain tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



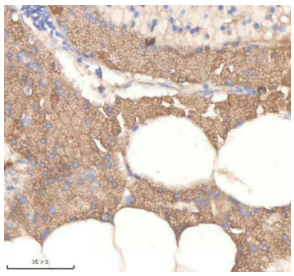
Zebrafish Pard3aa Antibody Spinal Tissue IHC. Immunohistochemistry staining of zebrafish Pard3aa protein using Zebrafish Pard3aa antibody, HRP-labeled secondary and DAB substrate. Pard3aa was detected in a paraffin-embedded section of zebrafish spinal tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



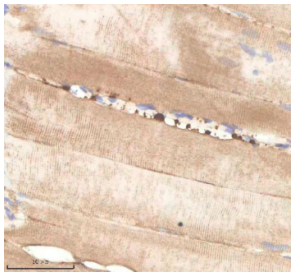
Zebrafish Pard3aa Antibody Colon Tissue IHC. Immunohistochemistry staining of zebrafish Pard3aa protein using Zebrafish Pard3aa antibody, HRP-labeled secondary and DAB substrate. Pard3aa was detected in a paraffin-embedded section of zebrafish colon tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Pard3aa Antibody Testis Tissue IHC. Immunohistochemistry staining of zebrafish Pard3aa protein using Zebrafish Pard3aa antibody, HRP-labeled secondary and DAB substrate. Pard3aa 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 Pard3aa Antibody Pancreas Tissue IHC. Immunohistochemistry staining of zebrafish Pard3aa protein using Zebrafish Pard3aa antibody, HRP-labeled secondary and DAB substrate. Pard3aa was detected in a paraffin-embedded section of zebrafish pancreas tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Pard3aa Antibody Muscle Tissue IHC. Immunohistochemistry staining of zebrafish Pard3aa protein using Zebrafish Pard3aa antibody, HRP-labeled secondary and DAB substrate. Pard3aa was detected in a paraffin-embedded section of zebrafish muscle tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

The Zebrafish Pard3aa antibody targets Pard3aa, also known as Partitioning defective 3, a key polarity protein required for establishing apical-basal organization, epithelial junction formation, and coordinated cell morphology in Danio rerio. Zebrafish, also known as Danio rerio, express pard3aa during early embryogenesis in tissues undergoing epithelialization, neuroepithelial patterning, and lumen formation. Pard3aa localizes primarily at the apical membrane and tight junction regions of polarized cells, where it functions as a core component of the Par polarity complex alongside Pard6 and aPKC. This complex governs cell polarity, directional migration, and structural organization across developing tissues.

Pard3aa belongs to the conserved scaffold protein family defined by multiple PDZ domains that mediate interactions with membrane receptors, cytoskeletal components, and polarity regulators. In zebrafish, Pard3aa is enriched in the neural tube, digestive tract epithelium, pronephros, and other tissues where proper apical-basal polarity is essential for morphogenesis. A Zebrafish Pard3aa antibody is suitable for detecting apical junctional and membrane-associated expression patterns in developing epithelia and neuroepithelial zones where polarity cues govern tissue architecture.

Functionally, Pard3aa plays a central role in establishing and maintaining cell polarity. It directs the positioning of adherens and tight junctions, regulates cytoskeletal organization, and contributes to lumen formation in tubular organs. In the zebrafish neural tube, Pard3aa ensures correct apical organization, mitotic spindle orientation, and neuroepithelial integrity. Loss of pard3aa disrupts apical junctions, alters epithelial morphology, and leads to defective lumen continuity. Pard3aa also contributes to directional cell rearrangements and junctional remodeling during convergence and extension movements, supporting coordinated tissue elongation and patterning during gastrulation and neurulation.

Structurally, zebrafish Pard3aa contains an N-terminal oligomerization region, multiple PDZ domains for protein-protein interactions, and a C-terminal tail that recruits signaling proteins and cytoskeletal regulators. These domains enable Pard3aa to act as a scaffold organizing polarity complexes at the apical membrane. Zebrafish pard3aa maps to chromosome 9, regulated by developmental pathways associated with epithelial specification and neural tube formation. Co-localization studies often detect Pard3aa at nascent apical junctions, overlapping with markers such as ZO proteins, aPKC, and cytoskeletal regulators involved in maintaining epithelial cohesion.

A Zebrafish Pard3aa antibody is suitable for detecting Pard3aa in studies focused on epithelial polarity, neuroepithelial development, junction formation, lumenogenesis, and tissue morphogenesis in Danio rerio. Its apical and junctional localization provides insight into how polarity complexes establish tissue architecture, how defects in cell polarity lead to developmental abnormalities, and how cytoskeletal and signaling networks coordinate during organ formation. Because zebrafish offer transparent embryos and robust epithelial morphogenesis models, Pard3aa is widely used to investigate polarity disorders, neural tube formation, and epithelial remodeling. This antibody is supplied for research use by NSJ Bioreagents.

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

Application Notes

Optimal dilution of the Zebrafish Pard3aa antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Pard3aa recombinant protein (amino acids M1-Q1303) was used as the immunogen for the Zebrafish Pard3aa antibody.

Storage

After reconstitution, the Zebrafish Pard3aa 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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