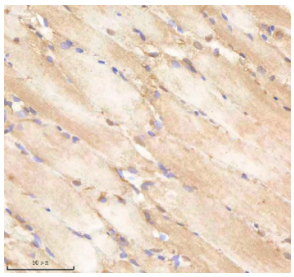
Zebrafish Pa2g4 Antibody / Pa2g4a / Pa2g4b (RZ1260)

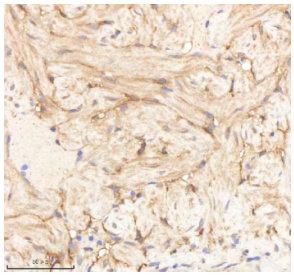
Catalog No.	Formulation	Size
RZ1260	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

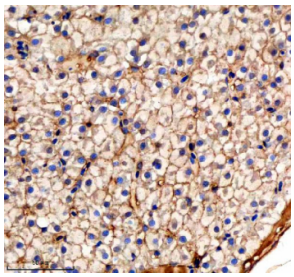
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q8AW82, Q6PHD8
Localization	Cytoplasmic, Nuclear (human similarity)
Applications	Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish Pa2g4 antibody is available for research use only.



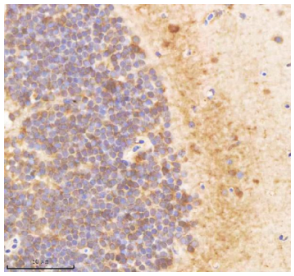
IHC staining of zebrafish Pa2g4 protein using Zebrafish Pa2g4 antibody, HRP-labeled secondary and DAB substrate. Pa2g4 was detected in a paraffin-embedded section of zebrafish muscle tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of zebrafish Pa2g4 protein using Zebrafish Pa2g4 antibody, HRP-labeled secondary and DAB substrate. Pa2g4 was detected in a paraffin-embedded section of zebrafish heart tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of zebrafish Pa2g4 protein using Zebrafish Pa2g4 antibody, HRP-labeled secondary and DAB substrate. Pa2g4 was detected in a paraffin-embedded section of zebrafish liver tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of zebrafish Pa2g4 protein using Zebrafish Pa2g4 antibody, HRP-labeled secondary and DAB substrate. Pa2g4 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.

Description

Proliferation-associated 2G4, also known as Pa2g4, is a key protein involved in regulating several fundamental cellular processes, including cell cycle progression, apoptosis, and transcriptional regulation. It is a member of the pentraxin family of proteins, which are important in immune modulation and inflammatory responses. Pa2g4 functions to ensure the proper regulation of cell survival and proliferation, particularly during embryonic development and under cellular stress conditions.

In zebrafish, Pa2g4 is an ortholog of the human PA2G4 gene. Both zebrafish and human Pa2g4 proteins share conserved functional domains, including the pentraxin domain, which is involved in protein-protein interactions and modulation of inflammatory signaling pathways. The functional similarity between the zebrafish and human versions of Pa2g4 makes the zebrafish model particularly useful for studying the roles of Pa2g4 in cellular growth, immune responses, and disease modeling.

In addition to its role in regulating the cell cycle, Pa2g4 is involved in the stress response by influencing pathways that govern cell survival and apoptosis. Pa2g4 interacts with various cell cycle regulators such as cyclins and cyclin-dependent kinases to modulate cell cycle progression and ensure proper timing of cellular events. Moreover, Pa2g4 is essential in immune cell function by regulating the activation and proliferation of immune cells during inflammatory conditions.

Pa2g4 is expressed in several tissues in zebrafish, including the brain, heart, and liver, and plays a crucial role during early embryogenesis. It is involved in developmental processes such as neurogenesis, organogenesis, and cell differentiation. Pa2g4 is also important for maintaining tissue homeostasis, and its regulation ensures normal tissue repair and regenerative processes.

Because of its evolutionary conservation and involvement in key biological pathways, zebrafish Pa2g4 is a valuable model for studying developmental biology, cancer research, immunology, and cell cycle regulation.

Application Notes

Optimal dilution of the Zebrafish Pa2g4 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Pa2g4 recombinant protein (amino acids R137-K177) was used as the immunogen for the Zebrafish Pa2g4 antibody.

Storage

After reconstitution, the Zebrafish Pa2g4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.