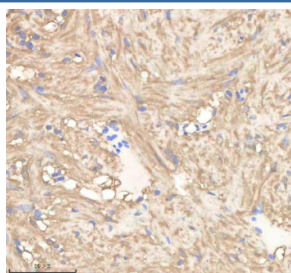


Zebrafish Pgam1 Antibody / Pgam1a / Pgam1b / Phosphoglycerate mutase (RZ1268)

Catalog No.	Formulation	Size
RZ1268	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	Q7SZR4, B8A4H6
Applications	Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish Pgam1 antibody is available for research use only.



IHC staining of zebrafish Pgam1a/b protein using Zebrafish Pgam1 antibody, HRP-labeled secondary and DAB substrate. Pgam1 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.

Description

Pgam1 (Phosphoglycerate mutase 1) is an enzyme involved in the glycolytic pathway, where it catalyzes the interconversion of 3-phosphoglycerate to 2-phosphoglycerate. This step is crucial for the energy metabolism of cells, as it facilitates the continuation of glycolysis and plays a vital role in cellular ATP production. Pgam1 is a phosphoglycerate mutase and is found in a variety of tissues, where it helps regulate cellular energy homeostasis and metabolic flexibility.

In zebrafish, Pgam1 is an ortholog of the human PGAM1 gene. Both zebrafish and human Pgam1 proteins share significant sequence similarity and perform equivalent functions in glycolytic metabolism. The protein in both species is

involved in the reversible conversion of 3-phosphoglycerate to 2-phosphoglycerate, ensuring the smooth progression of glycolysis. Zebrafish Pgam1 is widely expressed in tissues that rely on high levels of metabolic activity, including the muscle, brain, and liver.

Zebrafish Pgam1 has isoforms, as is common for metabolic enzymes involved in energy metabolism. These isoforms may differ in their tissue distribution or functional properties, which is important for the regulation of glycolysis under different physiological conditions. These isoforms may be involved in tissue-specific functions and are essential for maintaining glycolytic flux in response to varying energy demands during development and growth.

In zebrafish, Pgam1 plays a critical role during embryogenesis, where metabolic regulation is essential for proper growth and tissue differentiation. It is also important for muscle development and neural tissue formation, where metabolic demands are high. Pgam1 is expressed in developing tissues, particularly those undergoing rapid cell division and differentiation.

Given its role in metabolism, cellular energy regulation, and development, zebrafish Pgam1 is an important protein for studying glycolysis, energy metabolism, and diseases related to metabolic dysfunction. It is particularly valuable in studies of muscle metabolism, neurodevelopment, and embryonic development.

Application Notes

Optimal dilution of the Zebrafish Pgam1 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Pgam1 recombinant protein (amino acids Q43-K254) was used as the immunogen for the Zebrafish Pgam1 antibody. This antibody will detect the a & b isoforms.

Storage

After reconstitution, the Zebrafish Pgam1 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.