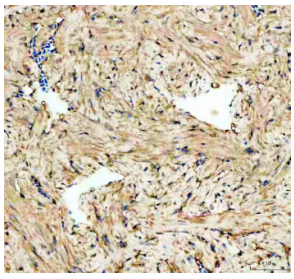
Psmc3 Antibody / Proteasome 26S subunit ATPase 3 / Tbp-1 (RZ1319)

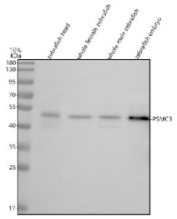
Catalog No.	Formulation	Size
RZ1319	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

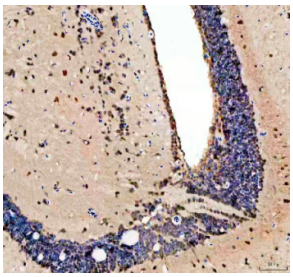
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	A0A0R4ILA8
Localization	Cytoplasmic, Nuclear
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish Psmc3 antibody is available for research use only.



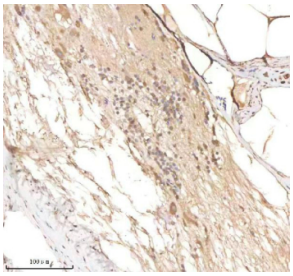
IHC staining of FFPE zebrafish heart tissue with Psmc3 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot analysis of Psmc3 protein using Zebrafish Psmc3 antibody and 1) zebrafish head, 2) whole female zebrafish, 3) whole male zebrafish and 4) zebrafish embryo tissue lysate. Predicted molecular weight ~49 kDa.



IHC staining of FFPE zebrafish brain tissue with Psmc3 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE zebrafish spinal tissue with Psmc3 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Zebrafish Psmc3, also known as proteasome 26S subunit ATPase 3, is a critical component of the 19S regulatory particle of the 26S proteasome. Psmc3 is an ATP binding protein that participates in the recognition, unfolding, and translocation of ubiquitinated substrates into the proteolytic core for degradation. This function is essential for maintaining protein homeostasis, regulating cell cycle progression, and controlling key signaling pathways through targeted protein turnover.

Zebrafish Psmc3 is an ortholog of the human PSMC3 protein, sharing high sequence similarity and functional conservation. In both zebrafish and humans, Psmc3 contributes to the ATP dependent steps required for proteasome assembly and substrate processing. This evolutionary conservation makes zebrafish a suitable model for studying the roles of Psmc3 in development, stress responses, and diseases linked to impaired proteasome function, such as neurodegeneration and cancer.

The use of a Zebrafish Psmc3 antibody allows researchers to detect and study the expression of Psmc3 in various tissues and developmental stages. These antibodies are valuable tools for applications including western blot, immunohistochemistry, and immunofluorescence, helping to clarify how proteasome activity is regulated in zebrafish. A Zebrafish Psmc3 antibody is also useful for comparative studies on proteasome regulation between zebrafish and mammalian systems.

At this time there are no known isoforms of zebrafish Psmc3. By using a Zebrafish Psmc3 antibody, researchers can investigate its contribution to protein quality control and understand its functional relevance to human health and disease.

Application Notes

Optimal dilution of the Zebrafish Psmc3 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Psmc3 recombinant protein (amino acids M1-A427) was used as the immunogen for the Zebrafish Psmc3 antibody.

Storage

After reconstitution, the Zebrafish Psmc3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.