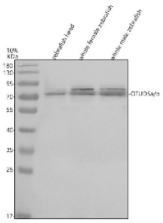
Zebrafish Otud5 Antibody / Otud5a / Otud5b (RZ1257)

Catalog No.	Formulation	Size
RZ1257	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	Q08BW0, F1QPN8
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish Otud5 antibody is available for research use only.



Western blot analysis of OTUD5a/b protein using Zebrafish OTUD5a/b antibody and 1) zebrafish head, 2) whole female zebrafish and 3) whole male zebrafish tissue lysate. Predicted molecular weight ~60 kDa (Otud5a) and ~58 kDa (Otud5b).

Description

Otud5, or ovarian tumor domain containing protein five, is a deubiquitinating enzyme that regulates protein stability and cellular signaling by removing ubiquitin chains from target proteins. It is a member of the ovarian tumor domain protease family and plays an important role in controlling immune responses, chromatin structure, and transcriptional regulation.

In zebrafish, Otud5 is expressed during early development and in various adult tissues, particularly in the nervous system, immune-related organs, and proliferative tissues. The zebrafish Otud5 protein is an ortholog of the human OTUD5 gene. Both proteins share conserved catalytic domains and regulatory motifs that are essential for deubiquitinase activity and interaction with signaling complexes.

Functionally, Otud5 acts as a negative regulator of immune signaling by deubiquitinating and stabilizing key proteins in pathways such as type one interferon and nuclear factor kappa B signaling. It also influences chromatin accessibility and transcription by regulating histone modifiers and chromatin remodelers. In humans, mutations in OTUD5 have been linked to developmental disorders involving intellectual disability and immune dysfunction.

In zebrafish, disruption of Otud5 function affects normal embryonic patterning and tissue development, suggesting a conserved role in regulating gene expression and cellular responses during growth and differentiation. Due to this conservation, zebrafish Otud5 is an important tool for modeling human disease mechanisms and studying deubiquitination in vertebrate development and immunity.

Application Notes

Optimal dilution of the Zebrafish Otud5 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Otud5 recombinant protein (amino acids E167-D544) was used as the immunogen for the Zebrafish Otud5 antibody.

Storage

After reconstitution, the Zebrafish Otud5 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.