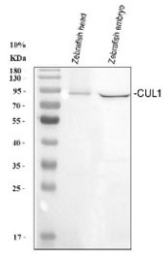
Zebrafish Cul1 Antibody / Cul1a / Cul1b / Cullin 1 (RZ1165)

Catalog No.	Formulation	Size
RZ1165	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	Q6NYS3, Q802D4
Applications	Western Blot : 0.5-1 ug/ml
Limitations	This Zebrafish Cul1 antibody is available for research use only.



Western blot analysis of Zebrafish Cul1a/b protein using Zebrafish Cul1 antibody with 1) zebrafish head and 2) zebrafish embryo tissue lysate. Predicted molecular weight ~90 kDa.

Description

Cullin 1 (Cul1) is a core component of the SCF (SKP1Ã¢Â€Â“CullinÃ¢Â€Â“F-box) E3 ubiquitin ligase complex, which plays a crucial role in regulating protein turnover via the ubiquitin-proteasome system. In zebrafish (Danio rerio), Cul1 is highly conserved and functionally analogous to its mammalian counterpart, mediating ubiquitination and subsequent proteasomal degradation of key regulatory proteins involved in cell cycle progression, signal transduction, and developmental processes.

Cul1 functions as a scaffold protein, linking the SKP1 adaptor and the Rbx1 RING-finger protein, enabling the recruitment of specific F-box proteins that confer substrate specificity. Zebrafish cul1 expression is detected during early

embryogenesis, particularly in proliferative tissues, reflecting its essential role in controlling cell division and differentiation during development.

Functional studies in zebrafish have shown that loss of Cul1 activity can disrupt cell cycle control, leading to developmental defects and altered cell proliferation. Its evolutionary conservation and essential cellular functions make zebrafish Cul1 a valuable model for studying ubiquitin-mediated regulation in vertebrate development and disease models.

Application Notes

Optimal dilution of the Zebrafish Cul1 antibody should be determined by the researcher.

Immunogen

An E.coli-derived zebrafish Cul1a/b recombinant protein (amino acids K436-A777) was used as the immunogen for the Zebrafish Cul1 antibody. This antibody will detect the a and b isoforms of Cul1.

Storage

After reconstitution, the Zebrafish Cul1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.