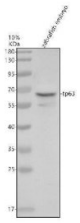
Zebrafish TP63 Antibody / p63 Antibody (RZ1394)

Catalog No.	Formulation	Size
RZ1394	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/mL.
UniProt	Q8JHZ6
Applications	Western blot: 0.5-1ug/ml
Limitations	This Zebrafish TP63 Antibody / p63 Antibody is available for research use only.



Zebrafish TP63 Antibody Western Blot. Western blot analysis of zebrafish embryo tissue lysate using Zebrafish TP63 Antibody / p63 Antibody demonstrates a distinct immunoreactive band at approximately 63 kDa, consistent with the predicted molecular weight of TP63 (tumor protein p63), a p53-family transcription factor involved in epithelial development, epidermal differentiation, stem cell maintenance, and tissue morphogenesis. TP63 is widely used as a marker of basal epithelial cell populations and developing ectoderm-derived tissues in zebrafish developmental biology studies. Thirty micrograms of zebrafish embryo lysate were resolved under reducing conditions on a 10% SDS-PAGE gel and transferred to nitrocellulose prior to immunodetection. The observed band supports expression of TP63 in developing zebrafish tissues and demonstrates suitability of this antibody for western blot analysis. Expected molecular weight: ~63 kDa.

Description

Zebrafish TP63 Antibody / p63 Antibody detects TP63, a member of the p53 family of transcription factors that plays a central role in epithelial development, tissue morphogenesis, stem cell maintenance, and cellular differentiation. TP63 is highly conserved among vertebrates and functions as a master regulator of epithelial lineage specification, controlling gene expression programs that establish and maintain stratified epithelial tissues. In zebrafish, TP63 expression is widely used as a marker of basal epithelial cells and developing epidermal structures, making it an important target for

developmental biology, regenerative medicine, and tissue homeostasis research.

TP63 is required for normal formation and maintenance of epithelial tissues throughout embryonic development. The protein regulates genes involved in cell proliferation, survival, adhesion, and differentiation, helping coordinate the complex cellular transitions necessary for tissue formation. During zebrafish embryogenesis, TP63 expression is detected in epidermal and ectoderm-derived cell populations and contributes to the development of structures that require tightly controlled epithelial organization. Because these pathways are conserved across vertebrate species, zebrafish serves as a valuable model for studying TP63-dependent developmental mechanisms relevant to human biology and disease.

Multiple TP63 isoforms have been identified and are known to perform distinct regulatory functions. Some isoforms promote maintenance of progenitor and stem-like cell populations, while others contribute to terminal differentiation and tissue maturation. This balance between self-renewal and differentiation is critical for proper tissue architecture and long-term epithelial integrity. As a result, TP63 has become an important molecular marker for investigating epithelial progenitor cell biology and the signaling pathways that govern tissue development and maintenance.

TP63 is also closely associated with craniofacial development, fin formation, epidermal patterning, and other morphogenetic processes in zebrafish. Researchers frequently utilize zebrafish models to examine how alterations in TP63-regulated pathways influence developmental outcomes, cellular organization, and tissue structure. The optical transparency of zebrafish embryos further enhances the ability to visualize developmental events and evaluate TP63 expression patterns during early stages of vertebrate development.

In addition to its developmental functions, TP63 is increasingly studied in the context of tissue regeneration and wound repair. Zebrafish possess remarkable regenerative capacity, allowing investigators to explore how TP63-positive epithelial and progenitor cell populations contribute to tissue restoration following injury. Analysis of TP63 expression can provide insight into regenerative responses, epithelial remodeling, cellular plasticity, and the molecular mechanisms that support successful tissue repair.

Zebrafish TP63 Antibody / p63 Antibody is useful for researchers studying epithelial biology, developmental genetics, stem cell regulation, regenerative biology, tissue morphogenesis, and p53-family signaling pathways. Applications may include immunohistochemistry, immunofluorescence, western blotting, and other protein expression analyses when supported by validation data. As one of the most widely recognized markers of epithelial development and maintenance, TP63 remains an important target for understanding the molecular networks that regulate tissue formation, differentiation, homeostasis, and regeneration in zebrafish and other vertebrate systems.

Learn more about p63 expression, basal cell identification, epithelial differentiation, and stem cell biology on our p63 Antibody / Basal Cell Marker Antibody page.

This Zebrafish antibody is part of a broader Zebrafish / Danio rerio antibody panel offered by NSJ Bioreagents.

Application Notes

The optimal working dilution of the Zebrafish TP63 Antibody / p63 Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish p63/TP63 recombinant protein (amino acids M1-E588) was used as the immunogen for the Zebrafish p63 Antibody.

Storage

After reconstitution, the Zebrafish p63 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

TP63 Antibody, p63 Antibody, Tumor Protein p63 Antibody, Transformation-Related Protein 63 Antibody, p53-Related Protein Antibody, Trp63 Antibody

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