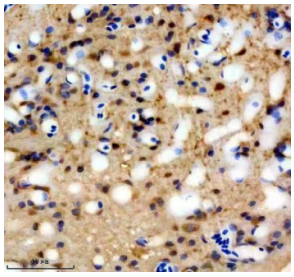
Zebrafish IRF6 Antibody / Interferon Regulatory Factor 6 (RZ1459)

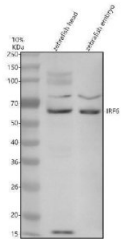
Catalog No.	Formulation	Size
RZ1459	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

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	Q6PGZ7
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish IRF6 Antibody / Interferon Regulatory Factor 6 is available for research use only.



Zebrafish IRF6 Antibody Brain IHC. Immunohistochemical analysis of IRF6 expression was performed using anti-IRF6 antibody in paraffin-embedded zebrafish brain tissue. IRF6, also known as Interferon Regulatory Factor 6, is a transcription factor involved in epithelial differentiation, tissue morphogenesis, and developmental signaling. Moderate cytoplasmic and nuclear staining is observed in neural cells, consistent with the role of IRF6 in regulating gene expression and maintaining tissue homeostasis during vertebrate development. The widespread staining pattern within brain tissue suggests that IRF6 contributes to cellular differentiation and developmental processes beyond its established roles in craniofacial morphogenesis. These results support the utility of Zebrafish IRF6 Antibody for studies of developmental biology, epithelial differentiation, and tissue regeneration. Heat-mediated antigen retrieval was performed in EDTA buffer, and sections were blocked with 10% goat serum before incubation with IRF6 antibody at 2 ug/ml overnight at 4Â°C. Detection was achieved using peroxidase-conjugated goat anti-rabbit IgG and DAB chromogen.



Zebrafish IRF6 Antibody WB. Western blot analysis of IRF6 expression was performed using anti-IRF6 antibody. Electrophoresis was carried out on a 10% SDS-PAGE gel under reducing conditions. Lane 1: zebrafish head tissue lysate. Lane 2: zebrafish embryo tissue lysate. IRF6, also known as Interferon Regulatory Factor 6, is a developmental transcription factor that regulates epithelial differentiation, tissue morphogenesis, and craniofacial development. A specific immunoreactive band is detected at approximately 60 kDa in both samples, close to the expected molecular weight of IRF6 (~55 kDa). Expression in head and embryo lysates is consistent with the important role of IRF6 during embryogenesis and tissue patterning. These results support the utility of Zebrafish IRF6 Antibody for studies of developmental biology, epithelial differentiation, and vertebrate morphogenesis.

Description

Zebrafish IRF6 Antibody / Interferon Regulatory Factor 6 Antibody recognizes interferon regulatory factor 6 (IRF6), a member of the IRF family of transcription factors that regulates epithelial development, differentiation, and tissue morphogenesis. Unlike other IRF proteins primarily associated with innate immunity and interferon signaling, IRF6 functions predominantly in developmental pathways controlling epidermal integrity and craniofacial formation. Because these processes are highly conserved among vertebrates, zebrafish provide a powerful model for studying IRF6-dependent mechanisms during embryogenesis and tissue regeneration. Zebrafish IRF6 Antibody / Interferon Regulatory Factor 6 Antibody enables investigation of this essential developmental regulator in embryos and adult tissues.

Zebrafish IRF6 Antibody / Interferon Regulatory Factor 6 Antibody is particularly useful for examining epithelial differentiation and craniofacial development. IRF6 is expressed in epithelial tissues and contributes to the formation and maintenance of the skin, oral epithelium, and other stratified surfaces. Genetic studies have demonstrated that loss of IRF6 function disrupts epithelial adhesion and morphogenesis, leading to developmental abnormalities. Through regulation of downstream target genes, IRF6 coordinates cellular proliferation and differentiation required for normal tissue architecture and embryonic patterning.

Mutations in human IRF6 are responsible for Van der Woude syndrome and popliteal pterygium syndrome, disorders characterized by cleft lip and cleft palate. Zebrafish models have been extensively used to investigate the molecular mechanisms underlying these congenital abnormalities and to identify signaling pathways involved in craniofacial morphogenesis. IRF6 also participates in wound healing and tissue repair, where epithelial cell migration and differentiation are critical for restoring tissue integrity. These studies highlight the importance of IRF6 in developmental biology and regenerative processes. Zebrafish IRF6 Antibody / Interferon Regulatory Factor 6 Antibody provides a valuable tool for examining these conserved functions.

Zebrafish IRF6 Antibody / Interferon Regulatory Factor 6 Antibody is useful for studies of epithelial differentiation, craniofacial development, wound healing, and vertebrate embryogenesis. It supports investigations of congenital disorders, tissue regeneration, and the transcriptional networks that regulate epithelial homeostasis. The evolutionary conservation of IRF6 signaling makes Zebrafish IRF6 Antibody / Interferon Regulatory Factor 6 Antibody an important reagent for developmental and translational research.

Explore our IRF6 Antibody / Epithelial Development Transcription Factor Antibody page for additional information on this key regulator of epithelial differentiation, tissue morphogenesis, and developmental gene expression.

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 IRF6 Antibody / Interferon Regulatory Factor 6 should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish Interferon Regulatory Factor 6 recombinant protein (amino acids K101-N474) was used as the immunogen for the Zebrafish IRF6 Antibody.

Storage

After reconstitution, the Zebrafish IRF6 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

Zebrafish IRF6 antibody, Zebrafish Interferon Regulatory Factor 6 antibody, Zebrafish IRF-6 antibody, Zebrafish Transcription Factor IRF6 antibody, Zebrafish Developmental Regulator antibody, Zebrafish Cleft Palate Protein antibody

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