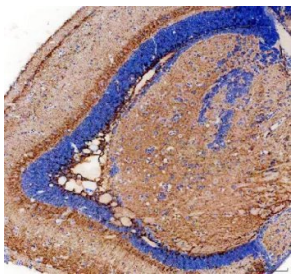
# Zebrafish PTF1A Antibody / Pancreas Transcription Factor 1A Antibody (RZ1385)

| Catalog No. | Formulation | Size |
|---|---|---|
| RZ1385 | 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** | Q7ZSX3 |
| **Applications** | Immunohistochemistry (FFPE): 2-5ug/ml |
| **Limitations** | This Zebrafish PTF1A Antibody / Pancreas Transcription Factor 1A Antibody is available for research use only. |



Zebrafish PTF1A Antibody Brain IHC. Immunohistochemical staining of paraffin-embedded zebrafish brain tissue using Zebrafish PTF1A Antibody / Pancreas Transcription Factor 1A Antibody demonstrates widespread cytoplasmic and nuclear HRP-DAB brown staining throughout neural tissue structures. The staining pattern is consistent with expression of PTF1A, a basic helix-loop-helix transcription factor that plays essential roles in cellular differentiation and developmental patterning. Although best known for its function in pancreatic development, PTF1A also contributes to the specification and maturation of distinct neuronal populations during vertebrate embryogenesis. The observed expression within zebrafish brain tissue is consistent with the established involvement of PTF1A in nervous system development and neural lineage determination. Heat-mediated antigen retrieval was performed in EDTA buffer, followed by overnight incubation with 2 Âµg/ml primary antibody and HRP-DAB visualization.

## Description

Zebrafish PTF1A Antibody / Pancreas Transcription Factor 1A Antibody is useful for studying Pancreas Transcription Factor 1A (PTF1A), a tissue-specific transcription factor that plays a critical role in pancreatic development, cellular

differentiation, and organogenesis. PTF1A is a member of the basic helix-loop-helix (bHLH) family of transcription factors and functions as a key regulator of gene expression programs that drive formation and maintenance of pancreatic cell lineages. Through these activities, PTF1A contributes to the establishment of normal digestive system structure and function during vertebrate development.

PTF1A is best known for its essential role in pancreatic progenitor specification and exocrine pancreas development. The protein regulates transcriptional networks that control cellular differentiation, tissue organization, and maturation of pancreatic cell populations. Because of its central importance in pancreatic lineage determination, PTF1A has become one of the most widely studied markers of pancreatic development and organ formation.

In zebrafish, PTF1A expression is closely associated with developing pancreatic tissues and progenitor cell populations involved in digestive organ formation. The zebrafish model provides unique opportunities to investigate pancreatic development because embryogenesis occurs externally and many developmental pathways are highly conserved among vertebrates. Analysis of PTF1A expression can therefore provide valuable insight into the molecular mechanisms that regulate pancreatic specification, tissue morphogenesis, and organogenesis.

Beyond pancreatic biology, PTF1A participates in broader developmental programs that influence cellular differentiation and tissue patterning. As a transcription factor, PTF1A regulates downstream target genes that coordinate developmental progression and lineage commitment. These activities make PTF1A an important target for studies involving developmental biology, stem cell differentiation, organ development, and transcriptional regulation.

Zebrafish has emerged as a powerful model for investigating vertebrate organogenesis because of its optical transparency, genetic accessibility, and conservation of key developmental signaling pathways. PTF1A is frequently utilized as a marker of pancreatic progenitor populations, exocrine pancreatic differentiation, and digestive system development. These characteristics make PTF1A valuable for studies examining the genetic and molecular mechanisms that govern organ formation and tissue specialization.

Zebrafish PTF1A antibodies are commonly used in immunohistochemistry, immunofluorescence, western blotting, and related protein detection applications to evaluate PTF1A expression and localization. These reagents support investigations of pancreatic development, organogenesis, cellular differentiation, developmental biology, transcriptional regulation, and digestive system formation in zebrafish research models.

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 PTF1A Antibody / Pancreas Transcription Factor 1A Antibody should be determined empirically by the investigator.

## Immunogen

An E.coli-derived Zebrafish PTF1A recombinant protein (amino acids D27-S265) was used as the immunogen for the Zebrafish PTF1A Antibody.

## Storage

After reconstitution, the Zebrafish PTF1A 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 Pancreas Transcription Factor 1A Antibody, Zebrafish Pancreatic Development Protein Antibody, Zebrafish Pancreatic Progenitor Marker Antibody, Zebrafish Exocrine Pancreas Marker Antibody, Zebrafish Basic Helix-Loop-Helix Transcription Factor Antibody, Zebrafish Digestive System Development Protein Antibody

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