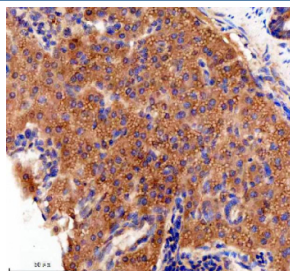


Zebrafish Jab1 Antibody / Jun activation domain-binding protein 1 / Cops5 (RZ1063)

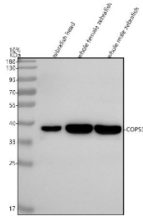
Catalog No.	Formulation	Size
RZ1063	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

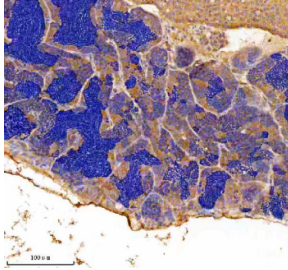
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q6PC30
Localization	Cytoplasm, Nucleus
Applications	Western Blot : 0.5-1 ug/ml Immunohistochemistry (FFPE) : 2-5 ug/ml
Limitations	This Zebrafish Jab1 antibody is available for research use only.



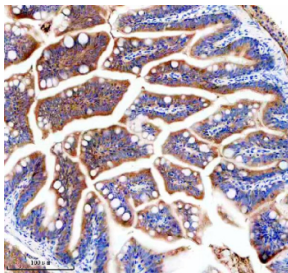
Zebrafish Jab1 Antibody Pancreas IHC. Immunohistochemistry staining of FFPE zebrafish pancreas tissue with Zebrafish Jab1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



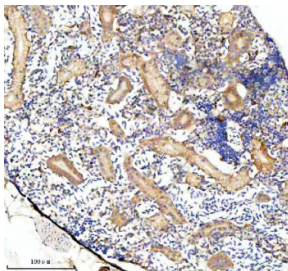
Zebrafish Jab1 Antibody WB. Western blot analysis of Jab1/COPS5 protein using Zebrafish Jab1 antibody and 1) zebrafish head, 2) whole female zebrafish and 3) whole male zebrafish tissue lysate. Predicted molecular weight ~38 kDa.



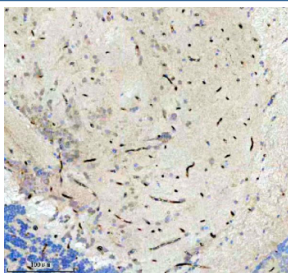
Zebrafish Jab1 Antibody Testis IHC. Immunohistochemistry staining of FFPE zebrafish testis tissue with Zebrafish Jab1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Jab1 Antibody Colon IHC. Immunohistochemistry staining of FFPE zebrafish colon tissue with Zebrafish Jab1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Jab1 Antibody Kidney IHC. Immunohistochemistry staining of FFPE zebrafish kidney tissue with Zebrafish Jab1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Jab1 Antibody Brain IHC. Immunohistochemistry staining of FFPE zebrafish brain tissue with Zebrafish Jab1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Zebrafish (*Danio rerio*) Jab1 antibody recognizes Jun activation domain-binding protein 1, also known as Cops5, a conserved regulatory component of the COP9 signalosome complex. Jab1/Cops5 participates broadly in developmental signaling by regulating protein stability, transcription factor activity, and post translational modification pathways. In *Danio rerio* embryos, *jab1/cops5* is expressed from early cleavage stages and is enriched in developing brain, neural tube, somites, heart, vasculature, and endoderm-derived tissues such as liver, intestine, and pancreas. Subcellular localization includes cytoplasm and nucleus, reflecting its participation in signalosome assembly, ubiquitin-dependent protein turnover, and transcriptional regulation.

Jun activation domain-binding protein 1 is an essential regulator of the COP9 signalosome (CSN), an evolutionarily conserved complex that modulates cullin-RING ubiquitin ligases. Through deneddylation of cullin proteins, Jab1 influences the activity of multiple ubiquitin ligase families that control degradation of transcription factors, cell cycle regulators, and developmental signaling intermediates. These processes are fundamental to zebrafish morphogenesis, enabling tight control over protein abundance during rapid proliferation, differentiation, and tissue remodeling.

Neural development depends heavily on Jab1/Cops5 activity. In the developing brain and spinal cord, Jab1 regulates the stability of transcription factors required for neuroepithelial proliferation, neuronal differentiation, and regional patterning. By fine-tuning degradation of signaling molecules within pathways such as MAPK, Wnt, and Notch, Jab1 supports the establishment of neural identity and the progression from progenitor states to differentiated neurons. Because neural tissues undergo continuous remodeling, Jab1-mediated regulation of protein turnover ensures balanced responsiveness to developmental cues.

In muscle and somite formation, Jab1 influences myogenic differentiation by modulating degradation of regulatory proteins that govern myotome segmentation, sarcomere assembly, and cytoskeletal organization. Zebrafish somites require precise coordination of proliferative and differentiating populations, and Jab1 contributes to these transitions through its roles in ubiquitin-dependent turnover and transcriptional regulation.

Cardiac and vascular development also rely on Jab1/Cops5. During early cardiogenesis, Jab1 regulates factors that influence cardiomyocyte proliferation, contractile maturation, and chamber morphogenesis. In endothelial tissues, Jab1 helps control turnover of signaling intermediates that guide angiogenic branching, vessel lumen formation, and vascular stability. Perturbation of jab1/cops5 expression can lead to defects in cardiac output, impaired heart looping, or abnormal vascular patterning.

Endoderm-derived organs require Jab1 to coordinate metabolic gene expression, stress-response pathways, and differentiation programs during liver and pancreas development. Because these organs undergo substantial transcriptional reprogramming and rapid structural expansion, Jab1 ensures controlled degradation of metabolic regulators and transcription factors that determine lineage-specific maturation.

Beyond its developmental roles, Jab1 participates in global proteostasis by influencing the ubiquitin-proteasome system, stress adaptation, and DNA damage responses. Zebrafish embryos experiencing metabolic or oxidative stress rely on signalosome-mediated regulation to maintain homeostasis and preserve tissue integrity.

This Zebrafish Jab1 antibody is suitable for detecting Jun activation domain-binding protein 1/Cops5 in research focused on COP9 signalosome biology, neural development, muscle and somite regulation, cardiac and vascular morphogenesis, and ubiquitin-dependent signaling in zebrafish. NSJ Bioreagents provides this reagent within its zebrafish and protein-regulation antibody portfolio.

This Zebrafish antibody is part of a [broader Zebrafish / Danio rerio antibody panel](#) offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Zebrafish Jab1 antibody should be determined by the researcher.

Immunogen

An E.coli-derived zebrafish Jab1/COPS5 recombinant protein (amino acids I6-S332) was used as the immunogen for the Zebrafish Jab1 antibody.

Storage

After reconstitution, the Zebrafish Jab1 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.

