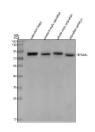


# Zebrafish Npas4l Antibody / Cloche / Neuronal PAS domain-containing protein 4-like (RZ1252)

Catalog No.	Formulation	Size
RZ1252	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	P0DOC7
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish Npas4l antibody is available for research use only.



Western blot analysis of Npas4l protein using Zebrafish Npas4l antibody and 1) zebrafish head, 2) whole female zebrafish, 3) whole male zebrafish and 4) zebrafish embryo tissue lysate. Predicted molecular weight ~69 kDa.

# Description

Npas4l, also known as neurogenic differentiation factor 4 like or cloche, is a basic helix loop helix PAS domain containing transcription factor that plays a critical role in early vascular and hematopoietic development in zebrafish. It functions as a master regulator in the specification of endothelial and blood progenitor cells during embryogenesis.

Npas4l is unique to zebrafish and closely related teleost species, and it does not have a confirmed one to one ortholog in humans. However, it is functionally analogous to members of the NPAS family of transcription factors in mammals, particularly those involved in neurogenesis and vascular development. Its closest functional equivalents in mammals are

believed to include NPAS4 and potentially other early endothelial regulators, although no direct human counterpart fully recapitulates its role in vascular progenitor specification.

In zebrafish embryos, Npas4l is expressed in the lateral plate mesoderm where it acts upstream of critical genes such as etsrp and tal1, which drive endothelial and hematopoietic differentiation. Loss of Npas4l results in the absence of blood and most vascular structures, making it essential for cardiovascular development.

Because of its pivotal and early role in blood and vessel formation, zebrafish Npas4l is a widely used genetic marker and model in studies of hematopoiesis, angiogenesis, and transcriptional regulation. It is especially valuable for dissecting the gene regulatory networks that control endothelial cell fate decisions in vertebrate embryos.

#### **Application Notes**

Optimal dilution of the Zebrafish Npas4l antibody should be determined by the researcher.

#### **Immunogen**

E. coli-derived zebrafish Npas4l recombinant protein (amino acids Q94-I647) was used as the immunogen for the Zebrafish Npas4l antibody.

### **Storage**

After reconstitution, the Zebrafish Npas4I antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.