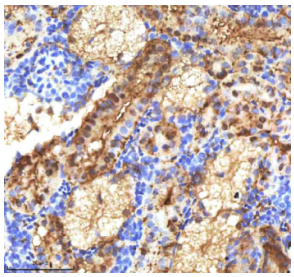
Zebrafish Etv2 Antibody / ETS variant transcription factor 2 / Etsrp (RZ1222)

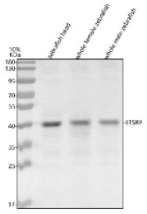
Catalog No.	Formulation	Size
RZ1222	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

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	A0A2R8Q5A3
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish Etv2 antibody is available for research use only.



Zebrafish Etv2 Antibody Kidney Tissue IHC. Immunohistochemistry staining of FFPE zebrafish kidney tissue with Etv2 antibody, HRP-labeled secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Etv2 Antibody Tissue WB. Western blot analysis of Etv2 protein using Zebrafish Etv2 antibody and 1) zebrafish head, 2) whole female zebrafish and 3) whole male zebrafish tissue lysate. Predicted molecular weight ~40 kDa.

Description

The Zebrafish Etv2 antibody targets Etv2, a master regulatory transcription factor required for vascular and hematopoietic lineage specification in Danio rerio. Zebrafish, also known as Danio rerio, express etv2 (also called etsrp) as one of the earliest markers of angioblasts and endothelial progenitors. Etv2 encodes a nuclear ETS family transcription factor that initiates gene programs for blood vessel formation, hemangioblast specification, and early blood development. Its expression is transient but essential, marking progenitor populations that give rise to the vascular network and primitive hematopoietic cells.

Etv2 belongs to the ETS variant (Etv) family of transcription factors characterized by an ETS DNA-binding domain that recognizes GGAA/T core motifs in target gene enhancers. In zebrafish embryos, etv2 expression is detected in the lateral plate mesoderm, intermediate cell mass, and nascent endothelial precursors. Loss-of-function studies show that Etv2 is indispensable for generating endothelial and hematopoietic progenitors, as embryos lacking etv2 fail to form a functional vasculature or circulating blood cells. A Zebrafish Etv2 antibody is suitable for research applications examining nuclear localization in vascular progenitors, early endothelial lineage specification, and hemangioblast differentiation.

Etv2 regulates a transcriptional hierarchy that activates core vascular genes such as flk1/kdrl, fli1a, lmo2, and tie2, while simultaneously suppressing programs incompatible with endothelial identity. During hematopoietic development, Etv2 helps specify primitive erythroid and myeloid lineages by regulating genes contributing to progenitor formation and differentiation. It also integrates signals from pathways including Vegf, Bmp, and Notch that coordinate vascular patterning and progenitor cell behavior. These functions position Etv2 as a pivotal node linking extrinsic morphogen cues to intrinsic transcriptional responses during early development.

Structurally, zebrafish Etv2 contains the conserved ETS DNA-binding domain that enables high-affinity binding to endothelial gene enhancers. The protein localizes to the nucleus, where it interacts with transcriptional co-activators to initiate lineage-specific programs. Zebrafish etv2 maps to chromosome 15, and enhancer studies show its expression is tightly regulated by signaling gradients controlling mesodermal patterning. Co-localization studies often detect Etv2 within vascular cord precursors and hemangioblast clusters marked by flk1, gata2a, lmo2, and other early blood or endothelial markers.

A Zebrafish Etv2 antibody is suitable for detecting Etv2 in studies focused on angioblast formation, endothelial differentiation, and hematopoietic specification in Danio rerio. Because Etv2 expression marks the earliest vascular lineage cells, it is widely used to map the emergence of endothelial networks and to characterize mutant phenotypes affecting vasculogenesis, circulation, or blood formation. Etv2's rapid downregulation as endothelial cells mature also makes it an effective marker for distinguishing early progenitors from differentiated endothelial populations. These features support research into vascular biology, developmental hematopoiesis, lineage specification, and transcription factor networks, and this reagent is supplied for research use by NSJ Bioreagents.

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

Application Notes

Optimal dilution of the Zebrafish Etv2 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Etv2 recombinant protein (amino acids M1-I218) was used as the immunogen for the Zebrafish Etv2 antibody.

Storage

After reconstitution, the Zebrafish Etv2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.