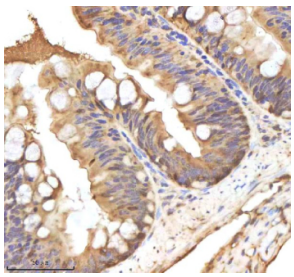
Zebrafish Hand2 Antibody / Heart and neural crest derivatives expressed 2 (RZ1227)

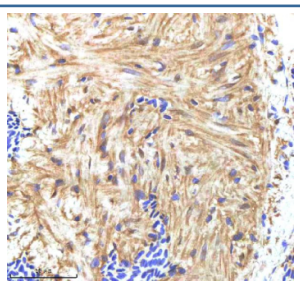
Catalog No.	Formulation	Size
RZ1227	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

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	P57102
Applications	Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish Hand2 antibody is available for research use only.



IHC staining of zebrafish Hand2 protein using Zebrafish Hand2 antibody, HRP-labeled secondary and DAB substrate. Hand2 was detected in a paraffin-embedded section of zebrafish colon tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of zebrafish Hand2 protein using Zebrafish Hand2 antibody, HRP-labeled secondary and DAB substrate. Hand2 was detected in a paraffin-embedded section of zebrafish heart tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Hand2, or heart and neural crest derivatives expressed two, is a basic helix loop helix transcription factor that plays a vital role in the development of the heart, limbs, and neural crest derived tissues. In zebrafish, Hand2 is essential for proper cardiac morphogenesis, vascular development, and craniofacial patterning.

During early zebrafish embryogenesis, Hand2 is expressed in the lateral plate mesoderm and contributes to the specification and differentiation of cardiac progenitor cells. It is particularly important for the formation of the heart tube and for the development of the atrial and ventricular chambers. Hand2 also regulates the migration and function of neural crest cells, which give rise to structures such as the jaw and pharyngeal arches.

Loss of Hand2 function in zebrafish leads to severe defects in heart formation, including impaired looping and chamber development, as well as abnormalities in craniofacial structures. Because of its conserved role in vertebrate development, zebrafish Hand2 is widely used as a model for studying congenital heart defects, craniofacial malformations, and the genetic pathways that guide mesodermal and neural crest cell differentiation.

Zebrafish Hand2 is a valuable tool in developmental biology, regenerative medicine, and disease modeling, particularly in research focused on cardiac development and structural birth defects.

Application Notes

Optimal dilution of the Zebrafish Hand2 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Hand2 recombinant protein (amino acids M1-Q208) was used as the immunogen for the Zebrafish Hand2 antibody.

Storage

After reconstitution, the Zebrafish Hand2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.