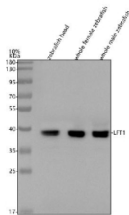


Zebrafish Lft1 Antibody / Lefty | Left-right determination factor (RZ1234)

Catalog No.	Formulation	Size
RZ1234	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	Q9PW55
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish Lft1 antibody is available for research use only.



Western blot analysis of LFT1 protein using Zebrafish LFT1 antibody and 1) zebrafish head, 2) whole female zebrafish and 3) whole male zebrafish tissue lysate. Predicted molecular weight ~41 kDa.

Description

Lft1, also called, Lefty, Lefty related factor one and Left-right determination factor, is a member of the transforming growth factor beta superfamily and functions as a key regulator of left right axis determination during early zebrafish development. Lft1 is part of a group of signaling molecules that modulate the activity of the nodal signaling pathway, which is essential for establishing asymmetric organ positioning.

In zebrafish embryos, Lft1 is expressed asymmetrically, typically on the left side of the lateral plate mesoderm and near the embryonic midline. Its main role is to inhibit nodal signals from spreading to the right side of the embryo, thereby ensuring that organs such as the heart, liver, and pancreas develop in their correct anatomical positions. Lft1 acts as a

feedback inhibitor, maintaining a precise boundary of nodal activity and contributing to the robustness of left right patterning.

Disruption of Lft1 expression or function can result in abnormal or randomized organ laterality, making it a critical component of the left right determination network. Zebrafish Lft1 is also involved in regulating mesoderm formation and is influenced by other early patterning cues such as those from the organizer region.

Due to its conserved role across vertebrates, zebrafish Lft1 is widely used in studies of embryonic asymmetry, developmental signaling, congenital heart defects, and the genetic regulation of organ positioning.

Application Notes

Optimal dilution of the Zebrafish Lft1 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Lft1 recombinant protein (amino acids R19-K312) was used as the immunogen for the Zebrafish Lft1 antibody.

Storage

After reconstitution, the Zebrafish Lft1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.