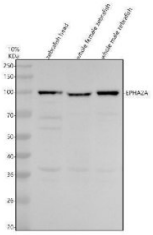
Zebrafish EPHA2 Antibody / Eph Receptor A2a Antibody (RZ1455)

Catalog No.	Formulation	Size
RZ1455	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/mL.
UniProt	Q6NZS1
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish EPHA2 Antibody / Eph Receptor A2a Antibody is available for research use only.



Zebrafish EPHA2 Antibody WB. Western blot analysis of EPHA2A expression was performed using anti-EPHA2 antibody. Electrophoresis was carried out on a 10% SDS-PAGE gel under reducing conditions. Lane 1: zebrafish head tissue lysate. Lane 2: whole female zebrafish tissue lysate. Lane 3: whole male zebrafish tissue lysate. EPHA2A, also known as Eph Receptor A2a, is a receptor tyrosine kinase involved in cell-cell communication, tissue patterning, and developmental signaling. A specific immunoreactive band is detected at approximately 109 kDa in all three samples, corresponding to the expected molecular weight of EPHA2A. Similar expression in head and whole-body lysates is consistent with the broad distribution of Eph receptor signaling pathways in neural and peripheral tissues. These results support the utility of Zebrafish EPHA2 Antibody for studies of receptor tyrosine kinase signaling, cell migration, and vertebrate development.

Description

Zebrafish EPHA2 Antibody / Eph Receptor A2a Antibody recognizes EPHA2A, a member of the Eph family of receptor tyrosine kinases that mediates cell-cell communication through interactions with membrane-bound ephrin ligands. Eph receptor A2a is the zebrafish ortholog of human EPHA2 and plays important roles in regulating cell adhesion, migration, proliferation, and tissue organization during embryonic development. Through bidirectional signaling with ephrin-A ligands, EPHA2A helps establish tissue boundaries and coordinate cell positioning required for normal morphogenesis.

EPHA2A belongs to the largest family of receptor tyrosine kinases and contains extracellular ligand-binding domains, a transmembrane region, and an intracellular kinase domain that initiates downstream signaling pathways. Activation of Eph receptor A2a influences Rho family GTPases, MAPK, PI3K/AKT, and Src signaling cascades, resulting in changes in cytoskeletal dynamics and cellular behavior. In zebrafish, EPHA2A contributes to epithelial organization, neural patterning, angiogenesis, and organ development. Following the teleost genome duplication event, zebrafish possess epha2a and epha2b paralogs, which may exhibit both overlapping and specialized functions.

Eph receptor signaling is essential for contact-dependent cell communication and has been implicated in numerous developmental processes including axon guidance, somitogenesis, vascular remodeling, and tissue regeneration. Zebrafish provide an excellent vertebrate model for studying these pathways because of their optical transparency and genetic tractability. Analyses of EPHA2A signaling in zebrafish have improved understanding of epithelial morphogenesis and the mechanisms controlling cell migration and tissue architecture.

In humans, dysregulation of EPHA2 signaling has been associated with cancer progression, metastasis, cataracts, and inflammatory disease. Consequently, studies of zebrafish EPHA2A provide valuable insight into conserved receptor tyrosine kinase pathways involved in both development and disease. Because Eph receptors regulate cellular interactions rather than soluble ligand responses, they occupy a unique position among receptor tyrosine kinases and serve as key mediators of tissue patterning and homeostasis.

Zebrafish EPHA2 Antibody / Eph Receptor A2a Antibody is useful for investigations of embryonic development, receptor tyrosine kinase signaling, cell migration, angiogenesis, and tissue morphogenesis. Detection of endogenous EPHA2A provides a valuable tool for studies of developmental biology and comparative vertebrate signaling pathways.

Visit our EPHA2 Antibody page to discover additional antibodies against this Receptor Tyrosine Kinase, including reagents for studies of cell adhesion, migration, angiogenesis, and cancer signaling.

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

Application Notes

The optimal working dilution of the Zebrafish EPHA2A Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish EPHA2A recombinant protein (amino acids D74-A966) was used as the immunogen for the Zebrafish EPHA2A Antibody.

Storage

After reconstitution, the Zebrafish EPHA2 Antibody / Eph Receptor A2a Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Zebrafish EPHA2A Antibody, Zebrafish Ephrin Type-A Receptor 2a Antibody, Zebrafish Epithelial Cell Kinase Antibody, Zebrafish ECK Antibody, Zebrafish Receptor Tyrosine Kinase Antibody, Zebrafish Eph Receptor A2a Antibody