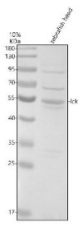
Zebrafish LCK Antibody / Lymphocyte-Specific Protein Tyrosine Kinase Antibody (RZ1382)

Catalog No.	Formulation	Size
RZ1382	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	Q6TPQ4
Applications	Western blot: 0.5-1ug/ml
Limitations	This Zebrafish LCK Antibody / Lymphocyte-Specific Protein Tyrosine Kinase Antibody is available for research use only.



Zebrafish LCK Antibody WB. Western blot analysis of zebrafish head tissue lysate using Zebrafish LCK Antibody / Lymphocyte-Specific Protein Tyrosine Kinase Antibody demonstrates a distinct immunoreactive band at approximately 55-57 kDa, consistent with the predicted molecular weight of LCK. LCK is a Src family tyrosine kinase that plays a central role in T-cell receptor signaling, lymphocyte activation, immune cell development, and adaptive immune responses. As a key regulator of downstream signaling pathways in lymphoid cells, LCK is widely studied in immunology, hematopoiesis, and vertebrate developmental biology. Thirty micrograms of protein lysate were resolved under reducing conditions on a 10% SDS-PAGE gel and transferred to nitrocellulose prior to immunodetection. The observed band supports detection of zebrafish LCK by western blot analysis. Predicted molecular weight: ~57 kDa.

Description

Zebrafish LCK Antibody / Lymphocyte-Specific Protein Tyrosine Kinase Antibody is useful for studying LCK, a member of the SRC family of non-receptor protein tyrosine kinases that plays a central role in immune cell signaling. LCK is best known as a critical initiator of T-cell receptor (TCR) signaling, where it phosphorylates downstream signaling components

and helps trigger cellular activation, proliferation, differentiation, and immune responses. Through these activities, LCK serves as a key regulator of adaptive immunity and lymphocyte function.

LCK is predominantly associated with T lymphocytes and related immune cell populations, where it functions as an essential signaling molecule linking extracellular receptor engagement to intracellular signaling pathways. Activation of LCK initiates signaling cascades that regulate gene expression, cytokine production, cellular communication, and immune cell development. Because of its central role in immune signaling, LCK has become an important marker for studies of lymphocyte biology and immune system development.

In zebrafish, LCK contributes to the establishment and function of the adaptive immune system. Zebrafish possess many conserved immune pathways found in higher vertebrates, making them valuable models for investigating T-cell development, immune regulation, host defense mechanisms, and signaling pathways involved in lymphocyte activation. Analysis of LCK expression can provide insight into the molecular processes that govern immune cell differentiation and function during development and adulthood.

As a protein tyrosine kinase, LCK regulates signal transduction through phosphorylation-dependent mechanisms that influence cellular activation and communication. These signaling events control numerous biologic processes including immune surveillance, cellular responses to environmental stimuli, and coordination of adaptive immune responses. Consequently, LCK is frequently studied in immunology, developmental biology, signal transduction research, and investigations of immune-related disorders.

Zebrafish has become an important model for studying vertebrate immunity because of its genetic tractability, optical transparency during development, and conservation of key immune signaling pathways. LCK expression is commonly examined in studies involving T-cell biology, lymphocyte development, immune signaling, hematopoiesis, and host-pathogen interactions. These characteristics make LCK a valuable target for investigating adaptive immune regulation and cellular signaling networks.

Zebrafish LCK antibodies are commonly used in immunohistochemistry, immunofluorescence, western blotting, and related protein detection applications to evaluate LCK expression and localization. These reagents support investigations of immune system development, T-cell signaling, lymphocyte biology, protein tyrosine kinase function, and signal transduction pathways in zebrafish research models.

Learn more about LCK function in T-cell receptor signaling, lymphocyte activation, adaptive immunity, and immune signal transduction on our LCK Antibody page.

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 LCK Antibody / Lymphocyte-Specific Protein Tyrosine Kinase Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish LCK recombinant protein (amino acids F7-D489) was used as the immunogen for the Zebrafish LCK Antibody.

Storage

After reconstitution, the Zebrafish LCK 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 Lymphocyte-Specific Protein Tyrosine Kinase Antibody, Zebrafish p56Lck Antibody, Zebrafish T-Cell Signaling

Kinase Antibody, Zebrafish SRC Family Kinase Antibody, Zebrafish T-Lymphocyte Kinase Antibody, Zebrafish Immune Signaling Protein Antibody

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