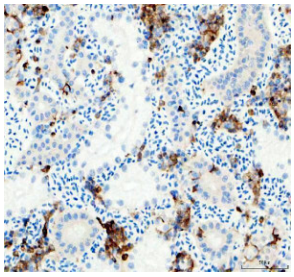
Zebrafish LCP1 Antibody / L-Plastin Antibody (RZ1457)

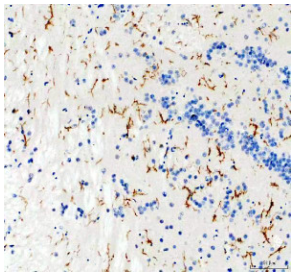
Catalog No.	Formulation	Size
RZ1457	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

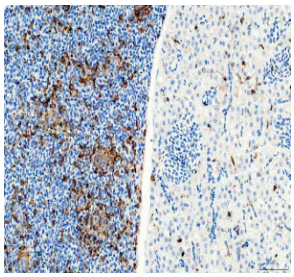
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/mL.
UniProt	Q6P698
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish LCP1 Antibody / L-Plastin Antibody is available for research use only.



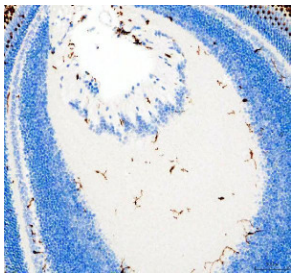
Zebrafish LCP1 Antibody Zebrafish Kidney IHC. Zebrafish LCP1 Antibody was used for immunohistochemical staining of paraffin-embedded zebrafish kidney tissue. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer before incubation with the primary antibody at 2 ug/ml, followed by HRP-conjugated secondary antibody and DAB visualization. Strong LCP1-positive staining is observed in numerous leukocyte-like cells distributed throughout the renal hematopoietic tissue, consistent with the zebrafish kidney serving as the primary hematopoietic organ. This Zebrafish LCP1 Antibody, an L-Plastin Antibody, is well suited for investigating zebrafish hematopoiesis, leukocyte development, innate immune cell populations, and inflammatory responses.



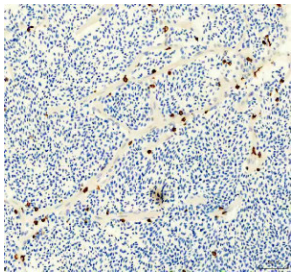
Zebrafish LCP1 Antibody Zebrafish Brain IHC. Zebrafish LCP1 Antibody was used for immunohistochemical staining of paraffin-embedded zebrafish brain tissue. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer before incubation with the primary antibody at 2 ug/ml, followed by HRP-conjugated secondary antibody and DAB visualization. Distinct LCP1-positive cells with branched, microglia-like morphology are observed throughout the brain parenchyma, consistent with the expression of L-Plastin in resident immune cells of the central nervous system. This Zebrafish LCP1 Antibody, an L-Plastin Antibody, is well suited for investigating zebrafish microglia, neuroimmune interactions, leukocyte biology, and inflammatory responses.



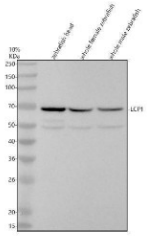
Zebrafish LCP1 Antibody Zebrafish Spleen and Liver IHC. Zebrafish LCP1 Antibody was used for immunohistochemical staining of paraffin-embedded zebrafish spleen (left) and liver (right) tissue sections. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer before incubation with the primary antibody at 2 ug/ml, followed by HRP-conjugated secondary antibody and DAB visualization. Strong immunoreactivity is observed throughout the spleen, while comparatively sparse positive cells are present within the liver, consistent with the enrichment of LCP1 in hematopoietic and immune cell populations. This Zebrafish LCP1 Antibody, an L-Plastin Antibody, is well suited for investigating zebrafish leukocyte distribution, immune cell biology, hematopoiesis, and inflammatory responses.



Zebrafish LCP1 Antibody Zebrafish Eye IHC. Zebrafish LCP1 Antibody was used for immunohistochemical staining of paraffin-embedded zebrafish eye tissue. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer before incubation with the primary antibody at 2 ug/ml, followed by HRP-conjugated secondary antibody and DAB visualization. Numerous LCP1-positive cells with ramified morphology are distributed throughout the retinal layers and vitreous region, consistent with resident microglia and other immune cell populations of the eye. This Zebrafish LCP1 Antibody, an L-Plastin Antibody, is well suited for investigating zebrafish retinal immune cells, ocular inflammation, microglial biology, and innate immune responses.



Zebrafish LCP1 Antibody Zebrafish Heart IHC. Zebrafish LCP1 Antibody was used for immunohistochemical staining of paraffin-embedded zebrafish heart tissue. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer before incubation with the primary antibody at 2 ug/ml, followed by HRP-conjugated secondary antibody and DAB visualization. Scattered LCP1-positive cells are observed throughout the cardiac tissue, primarily within the interstitial spaces, consistent with infiltrating or resident leukocytes that express L-Plastin. This Zebrafish LCP1 Antibody, an L-Plastin Antibody, is well suited for investigating zebrafish cardiac immune cell distribution, inflammation, tissue remodeling, and innate immune responses.



Zebrafish LCP1 Antibody WB. Western blot analysis of LCP1 expression was performed using anti-LCP1 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. LCP1, also known as L-Plastin or Lymphocyte Cytosolic Protein 1, is a calcium-regulated actin-bundling protein that plays essential roles in leukocyte migration, immune cell activation, and cytoskeletal remodeling. A specific immunoreactive band is detected at approximately 70 kDa in all three samples, corresponding to the expected molecular weight of LCP1. Similar expression in head and whole-body lysates is consistent with the broad distribution of LCP1-positive leukocytes and the widespread requirement for actin cytoskeletal regulation in vertebrate tissues. These results support the utility of Zebrafish LCP1 Antibody for studies of hematopoiesis, innate immunity, inflammation, and cell migration.

Description

Zebrafish LCP1 Antibody / L-Plastin Antibody recognizes lymphocyte cytosolic protein 1 (LCP1), also known as L-plastin or plastin 2, a calcium-regulated actin-bundling protein predominantly expressed in leukocytes. LCP1 belongs to the plastin family of cytoskeletal proteins and plays critical roles in actin filament organization, cell adhesion, and cellular motility. Because the functions of LCP1 are highly conserved among vertebrates, zebrafish have become a valuable model for studying hematopoiesis, immune cell development, and inflammatory responses.

Zebrafish LCP1 Antibody / L-Plastin Antibody is particularly useful for identifying macrophages, neutrophils, and other

hematopoietic cell populations. LCP1 expression appears early during embryonic development and persists throughout adulthood in cells of the immune system. By regulating actin filament bundling, LCP1 facilitates leukocyte migration, chemotaxis, phagocytosis, and tissue infiltration. The optical transparency and external development of zebrafish embryos make it possible to visualize LCP1-positive cells in vivo, providing unique opportunities to study host defense and tissue repair mechanisms.

Zebrafish models have extensively utilized LCP1 expression to investigate wound healing, infection, and inflammatory processes. Recruitment of LCP1-positive leukocytes is commonly monitored following tissue injury or microbial challenge, making LCP1 one of the most widely used markers of innate immune cells in zebrafish research. In addition to its role in normal immune function, abnormal LCP1 expression has been associated with enhanced migration and invasiveness in several cancers, suggesting broader functions in cytoskeletal remodeling and cell motility.

Zebrafish LCP1 Antibody / L-Plastin Antibody is a valuable tool for studies of hematopoiesis, innate immunity, inflammation, wound healing, and vertebrate development. It supports the characterization of macrophages, neutrophils, and other leukocyte populations while providing insight into the molecular mechanisms that regulate cytoskeletal organization and immune cell migration.

Explore our L-Plastin Antibody / Leukocyte Cytoskeletal Marker Antibody for additional information on this important regulator of leukocyte migration, cytoskeletal remodeling, and immune cell function.

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 LCP1 Antibody / L-Plastin Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish LCP1 recombinant protein (amino acids M1-E333) was used as the immunogen for the Zebrafish LCP1 Antibody.

Storage

After reconstitution, the Zebrafish LCP1 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 LCP1 antibody, Zebrafish L-Plastin antibody, Zebrafish Lymphocyte Cytosolic Protein 1 antibody, Zebrafish Plastin 2 antibody, Zebrafish Fimbrin-L antibody, Zebrafish Actin Bundling Protein antibody

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