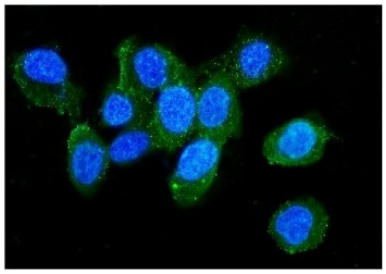
L-Plastin Antibody / Leukocyte Cytoskeletal Marker Antibody (RQ4893)

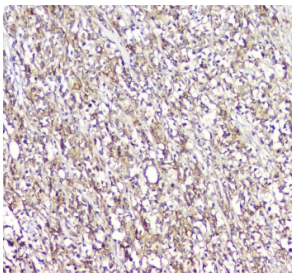
Catalog No.	Formulation	Size
RQ4893	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

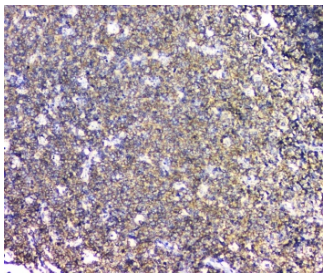
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P13796
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Immunofluorescence (FFPE): 2-4ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This L-Plastin Antibody / Leukocyte Cytoskeletal Marker Antibody is available for research use only.



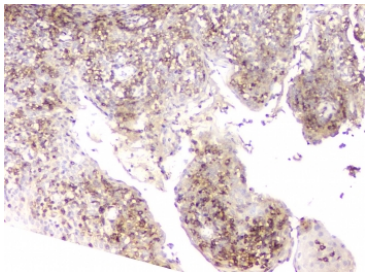
L-Plastin Antibody Human U-2 OS IF. Immunofluorescent staining of FFPE human U-2 OS cells with L-Plastin antibody revealed predominantly cytoplasmic staining with punctate and peripheral localization consistent with the distribution of L-plastin (LCP1), a calcium-regulated actin-bundling protein involved in cytoskeletal remodeling and cell migration. L-plastin is best known as a leukocyte marker but is also expressed in several malignancies, where it contributes to invasive and metastatic behavior. Green fluorescence indicates L-Plastin expression, while nuclei are counterstained with DAPI (blue). Heat-induced epitope retrieval was performed by steaming sections in pH 6 citrate buffer for 20 minutes prior to immunostaining.



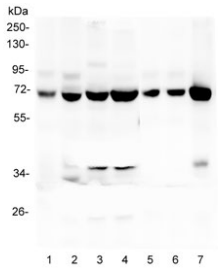
L-Plastin Antibody Human Lymphocytic Tumor IHC. IHC staining of FFPE human lymphocytic tumor tissue with L-Plastin antibody demonstrated widespread cytoplasmic and membranous staining of neoplastic lymphoid cells, consistent with the expression pattern of L-plastin (LCP1), a leukocyte-specific actin-bundling protein involved in immune cell activation and migration. L-plastin serves as a marker of hematopoietic cells and is frequently expressed in lymphoid malignancies. The diffuse staining pattern observed is consistent with the cytoskeletal remodeling and migratory properties characteristic of lymphocytic tumors. Immunostaining was performed with L-Plastin antibody at 1 ug/ml following heat-induced epitope retrieval by boiling tissue sections in pH 6, 10 mM citrate buffer for 10-20 minutes and allowing them to cool before testing.



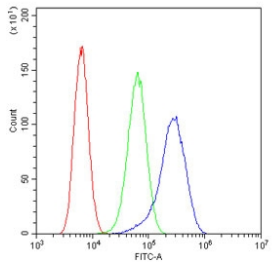
L-Plastin Antibody Human Tonsil IHC. IHC staining of FFPE human tonsil with L-Plastin antibody demonstrated strong cytoplasmic and membranous staining of lymphoid cells within the tonsillar parenchyma, consistent with the expression pattern of L-plastin (LCP1), a leukocyte-specific actin-bundling protein involved in immune cell activation and migration. L-plastin is broadly expressed in hematopoietic cells and serves as a useful marker of lymphocytes and other leukocyte populations. The widespread staining observed in tonsillar immune cells is consistent with the active cytoskeletal remodeling required for antigen recognition and immune surveillance. Immunostaining was performed with L-Plastin antibody at 1 ug/ml following heat-induced epitope retrieval by boiling tissue sections in pH 6, 10 mM citrate buffer for 10-20 minutes and allowing them to cool before testing.



L-Plastin Antibody Human Tonsillar Follicles IHC. IHC staining of FFPE human tonsil with L-Plastin antibody demonstrated strong cytoplasmic and membranous staining of lymphoid cells within tonsillar follicles and interfollicular regions, consistent with the expression pattern of L-plastin (LCP1), a leukocyte-specific actin-bundling protein involved in immune cell activation and migration. L-plastin is broadly expressed in lymphocytes and other hematopoietic cells, making it a useful marker of immune cell populations. The prominent staining observed throughout the lymphoid follicles is consistent with the active cytoskeletal remodeling required for antigen recognition, cell trafficking, and immune surveillance. Immunostaining was performed with L-Plastin antibody at 1 ug/ml following heat-induced epitope retrieval by boiling tissue sections in pH 6, 10 mM citrate buffer for 10-20 minutes and allowing them to cool before testing.



L-Plastin Antibody Human and Rodent Immune Cell WB. Western blot analysis of LCP1 expression was performed using anti-L-Plastin antibody in lysates from human CCRF-CEM, HEK293, HL-60, and THP-1 cells, rat spleen, mouse spleen, and mouse RAW264 cells. L-plastin, also known as Lymphocyte Cytosolic Protein 1 (LCP1), is a calcium-regulated actin-bundling protein predominantly expressed in hematopoietic cells and involved in leukocyte migration, immune cell activation, and cytoskeletal remodeling. Lane 1: CCRF-CEM. Lane 2: HEK293. Lane 3: HL-60. Lane 4: THP-1. Lane 5: rat spleen. Lane 6: mouse spleen. Lane 7: mouse RAW264 lysate. A prominent immunoreactive band is detected at approximately 70 kDa in all samples, corresponding to the predicted molecular weight of L-plastin. Strong expression in immune cell lines and lymphoid tissues is consistent with the established role of L-plastin as a marker of hematopoietic cells and mediator of leukocyte function. These results support the utility of L-Plastin Antibody for studies of innate immunity, inflammation, hematopoiesis, and cell migration.



L-Plastin Antibody Human U-2 OS FACS. Flow cytometric analysis of LCP1 expression was performed using L-Plastin antibody in human U-2 OS cells. L-plastin, also known as Lymphocyte Cytosolic Protein 1 (LCP1), is a calcium-regulated actin-bundling protein involved in cytoskeletal remodeling, cell adhesion, and migration. Cells were blocked with goat sera and stained with L-Plastin antibody at 1 ug/million cells. Red = cells alone, Green = isotype control, Blue = L-Plastin antibody. A marked rightward shift of the L-Plastin antibody histogram relative to the isotype control demonstrates specific detection of LCP1 expression in U-2 OS cells. These results support the utility of L-Plastin Antibody for studies of cytoskeletal dynamics, immune cell markers, and cancer cell migration.

Description

L-Plastin Antibody / Leukocyte Cytoskeletal Marker Antibody recognizes L-plastin, also known as lymphocyte cytosolic protein 1 (LCP1), a calcium-regulated actin-bundling protein predominantly expressed in hematopoietic cells. L-plastin belongs to the plastin family of actin-binding proteins and plays critical roles in cytoskeletal organization, cell adhesion, migration, and immune cell activation. Through stabilization and cross-linking of filamentous actin, L-plastin enables leukocytes to undergo rapid shape changes required for chemotaxis, phagocytosis, and interactions with other immune cells. This L-Plastin antibody provides highly specific detection of L-plastin in multiple applications.

L-plastin is expressed in a wide range of leukocyte populations, including T lymphocytes, B cells, macrophages, neutrophils, dendritic cells, and natural killer cells. Because of its restricted expression pattern, L-plastin has become an important marker of hematopoietic cells and inflammatory infiltrates. Phosphorylation and calcium-dependent regulation of L-plastin influence integrin activation, cell motility, and cytoskeletal remodeling. These functions are essential for immune surveillance, antigen presentation, tissue repair, and host defense against infectious agents.

Beyond its physiological roles in immunity, aberrant L-plastin expression has been reported in numerous malignancies. Elevated expression has been observed in colorectal, breast, prostate, ovarian, and hematologic cancers, where L-plastin promotes cell migration, invasion, and metastatic potential. Tumor cells frequently exploit L-plastin-mediated actin remodeling to enhance motility and adapt to the tumor microenvironment. Increased L-plastin expression has also been associated with poor prognosis and aggressive disease in several cancer types, making it a biomarker of considerable interest in oncology research.

L-plastin participates in signaling pathways involving integrins, Src family kinases, and calcium-dependent processes that coordinate cytoskeletal dynamics. These pathways regulate leukocyte activation and trafficking while also contributing to tumor cell invasion and inflammatory responses. Crosstalk between L-plastin and actin-associated proteins allows cells to rapidly reorganize their cytoskeleton in response to extracellular stimuli. Consequently, L-plastin has emerged as an important mediator of both normal immune function and disease progression.

L-Plastin Antibody / Leukocyte Cytoskeletal Marker Antibody is useful for studies of leukocyte biology, innate and adaptive immunity, inflammation, hematopoiesis, cell migration, and cancer metastasis. This antibody provides a valuable tool for identifying immune cell populations and investigating the molecular mechanisms that regulate cytoskeletal remodeling and cellular motility.

Learn more about markers involved in leukocyte biology, inflammation, and immune cell signaling in our Immunology Antibodies category.

Application Notes

Optimal dilution of the L-Plastin Antibody / Leukocyte Cytoskeletal Marker Antibody should be determined by the researcher.

Immunogen

Amino acids M1-K444 from the human protein were used as the immunogen for the L-Plastin antibody.

Storage

After reconstitution, the L-Plastin 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

L-Plastin antibody, LCP1 antibody, Lymphocyte Cytosolic Protein 1 antibody, Plastin 2 antibody, PLS2 antibody, Leukocyte Actin-Bundling Protein antibody, Fimbrin-L antibody

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