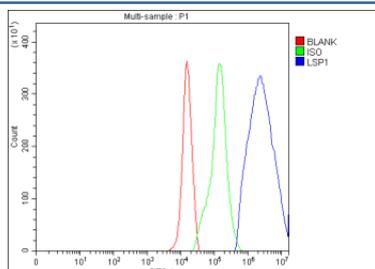


LSP1 Antibody / Lymphocyte-specific protein 1 (FY12761)

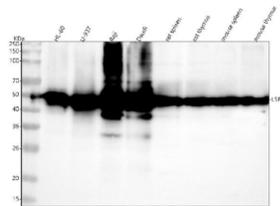
Catalog No.	Formulation	Size
FY12761	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

[Bulk quote request](#)

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	P33241
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This LSP1 antibody is available for research use only.



Flow Cytometry analysis of U937 cells using anti-LSP1 antibody. Overlay histogram showing U937 cells stained with (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-LSP1 antibody (1 ug/million cells) for 30 min at 20°C. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Western blot analysis of LSP1 using anti-LSP1 antibody. Lane 1: human HL-60 whole cell lysates, Lane 2: human U-937 whole cell lysates, Lane 3: human Raji whole cell lysates, Lane 4: human Daudi whole cell lysates, Lane 5: rat spleen tissue lysates, Lane 6: rat thymus tissue lysates, Lane 7: mouse spleen tissue lysates, Lane 8: mouse thymus tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-LSP1 antibody at 0.25 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A predominant band is detected at ~50 kDa, consistent with the phosphorylated form of LSP1 (predicted molecular weight ~37 kDa). The apparent upward shift is characteristic of LSP1's phosphorylation-dependent migration behavior observed in immune cell lysates.

Description

LSP1 antibody detects Lymphocyte-specific protein 1, an F-actin binding protein that regulates cytoskeletal remodeling, leukocyte motility, and endothelial cell migration. Encoded by the LSP1 gene on chromosome 11p15.5, this protein is expressed in leukocytes, endothelial cells, and dendritic cells. LSP1 localizes to the cytoplasmic side of the plasma membrane and associates with actin filaments to coordinate cell adhesion and migration in response to inflammatory or chemotactic signals. It is phosphorylated by protein kinase C and MAP kinases, which regulate its subcellular distribution and cytoskeletal interactions.

LSP1 modulates actin cytoskeleton dynamics by linking signaling pathways to filament organization. It participates in neutrophil chemotaxis, macrophage spreading, and lymphocyte trafficking through integrin and chemokine receptor signaling. In endothelial cells, LSP1 promotes actin rearrangement necessary for wound closure and angiogenic migration. It also regulates the stability of cell-cell junctions during inflammation, contributing to vascular permeability control.

The LSP1 antibody is widely used in immunology, vascular biology, and cytoskeletal research to detect Lymphocyte-specific protein 1 expression and function. Western blot analysis identifies a 60 kilodalton band corresponding to LSP1, while immunofluorescence demonstrates filamentous cytoplasmic staining that colocalizes with actin. In immune tissues, LSP1 staining highlights lymphocytes, macrophages, and endothelial cells at sites of inflammation, making it a valuable marker of cell motility and immune activation.

Aberrant expression or phosphorylation of LSP1 has been linked to chronic inflammatory diseases, autoimmune disorders, and tumor metastasis. It functions as a regulator of leukocyte extravasation and tissue infiltration. The LSP1 antibody supports studies of cytoskeletal regulation, immune cell dynamics, and endothelial remodeling. NSJ Bioreagents provides this antibody validated for its applications, ensuring high specificity for studies of actin-dependent cell motility.

Application Notes

Optimal dilution of the LSP1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human LSP1 recombinant protein (Position: A21-P339) was used as the immunogen for the LSP1 antibody.

Storage

After reconstitution, the LSP1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

