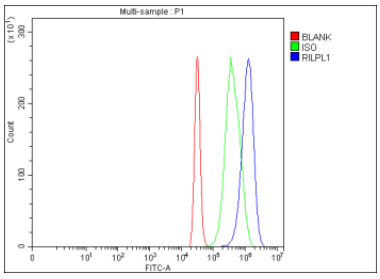
RILPL1 Antibody / Rab interacting lysosomal protein like 1 (FY12012)

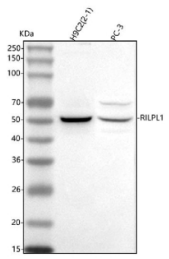
Catalog No.	Formulation	Size
FY12012	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, 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 Na2HPO4.
UniProt	Q5EBL4
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This RILPL1 antibody is available for research use only.



Flow Cytometry analysis of 293T cells using anti-RILPL1 antibody. Overlay histogram showing 293T cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RILPL1 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. 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 RILPL1 using anti-RILPL1 antibody. Lane 1: human H9C2(2-1) whole cell lysates, Lane 2: human PC-3 whole cell 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-RILPL1 antibody at 0.5 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. The expected band size for RILPL1 is at 47 kDa.

Description

RILPL1 antibody detects Rab interacting lysosomal protein like 1, encoded by the RILPL1 gene. Rab interacting lysosomal protein like 1 is a cytoplasmic protein associated with endosomal and lysosomal trafficking pathways and contributes to cellular transport processes. RILPL1 antibody provides researchers with a specific reagent for studying vesicle transport, Rab protein signaling, and lysosomal dynamics.

Rab interacting lysosomal protein like 1 belongs to a small family of proteins that interact with Rab GTPases. Research using RILPL1 antibody has shown that it participates in Rab8 and Rab10 mediated trafficking, regulating transport between recycling endosomes and lysosomes. This activity ensures accurate sorting of proteins and maintenance of membrane compartments. By stabilizing Rab interactions, RILPL1 promotes directional transport required for cell polarity and homeostasis.

Studies with RILPL1 antibody have demonstrated roles in neuronal cells. Rab interacting lysosomal protein like 1 regulates ciliogenesis and dendritic transport, contributing to neuronal morphology and signaling. Defects in RILPL1 expression have been associated with impaired ciliogenesis, which is linked to developmental disorders and neurodegeneration. These findings highlight its importance in specialized trafficking pathways of neurons.

In disease contexts, RILPL1 has been implicated in Parkinson disease. Research using RILPL1 antibody has shown that it interacts with LRRK2, a kinase mutated in familial Parkinson disease. Phosphorylation of Rab proteins by LRRK2 alters RILPL1 mediated trafficking, leading to lysosomal stress and defective autophagy. This suggests that RILPL1 is an important mediator of neurodegenerative pathology through its interaction with disease-associated signaling pathways.

RILPL1 antibody is applied in western blotting, immunohistochemistry, and immunofluorescence. Western blotting quantifies protein levels and detects post-translational changes, immunohistochemistry reveals tissue-specific expression, and immunofluorescence demonstrates subcellular localization to vesicular compartments. These methods make RILPL1 antibody valuable in cell biology and neuroscience research.

By providing validated RILPL1 antibody reagents, NSJ Bioreagents supports studies into Rab signaling, vesicle trafficking, and neurodegeneration. Detection of Rab interacting lysosomal protein like 1 provides researchers with insights into how vesicular transport pathways influence development and disease.

Application Notes

Optimal dilution of the RILPL1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human RILPL1 recombinant protein (Position: E3-K324) was used as the immunogen for the RILPL1 antibody.

Storage

After reconstitution, the RILPL1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at

-20oC. Avoid repeated freezing and thawing.