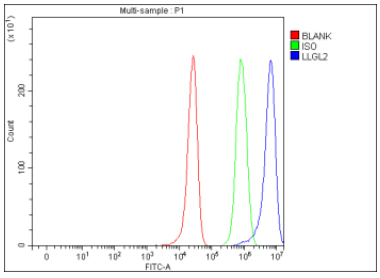
LLGL2 Antibody / Lethal giant larvae homolog 2 (FY12043)

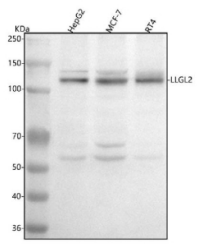
Catalog No.	Formulation	Size
FY12043	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
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	Q6P1M3
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This LLGL2 antibody is available for research use only.



Flow Cytometry analysis of HepG2 cells using anti-LLGL2 antibody. Overlay histogram showing HepG2 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-LLGL2 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 LLGL2 using anti-LLGL2 antibody. Lane 1: human HepG2 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human RT4 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-LLGL2 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 LLGL2 is at 113 kDa.

Description

LLGL2 antibody detects Lethal giant larvae homolog 2, encoded by the LLGL2 gene. Lethal giant larvae homolog 2 is a cytoskeletal and polarity-associated protein that regulates cell polarity, asymmetric cell division, and epithelial organization. LLGL2 antibody provides researchers with a specific reagent for investigating epithelial biology, polarity regulation, and tumor progression.

Lethal giant larvae homolog 2 is a mammalian homolog of the Drosophila tumor suppressor lethal giant larvae, which was first identified as a critical determinant of apical-basal polarity. Research using LLGL2 antibody has demonstrated that LLGL2 contributes to the establishment and maintenance of polarity complexes by interacting with Scribble and Discs large proteins. These interactions ensure spatial organization of epithelial cells, maintaining tissue integrity and function.

Studies with LLGL2 antibody have revealed that it also regulates vesicle trafficking and exocytosis. LLGL2 interacts with SNARE proteins and the exocyst complex to control delivery of polarity proteins and growth factors to the plasma membrane. This vesicular trafficking role integrates with its polarity-regulating function, emphasizing its importance in epithelial biology.

Dysregulation of LLGL2 has been implicated in cancer. Research using LLGL2 antibody has shown that loss or reduction of LLGL2 expression correlates with disruption of cell polarity and increased invasiveness in breast and gastric cancers. Conversely, certain tumors exploit LLGL2 to promote growth factor recycling, supporting proliferation and survival. This dual role underscores the complexity of LLGL2 in tumor biology.

LLGL2 antibody is commonly used in immunohistochemistry, immunofluorescence, and western blotting. Immunohistochemistry highlights reduced expression in cancer tissues, immunofluorescence demonstrates localization to the basolateral membrane, and western blotting quantifies expression across tissues. These approaches make LLGL2 antibody valuable for polarity and cancer research.

By supplying validated LLGL2 antibody reagents, NSJ Bioreagents supports studies into polarity regulation, epithelial biology, and tumorigenesis. Detection of Lethal giant larvae homolog 2 provides researchers with insight into how polarity proteins maintain tissue integrity and influence cancer progression.

Application Notes

Optimal dilution of the LLGL2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human LLGL2 recombinant protein (Position: L102-Q553) was used as the immunogen for the LLGL2 antibody.

Storage

After reconstitution, the LLGL2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.