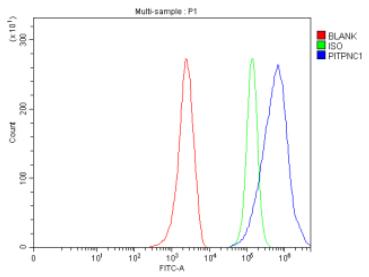
PITPNC1 Antibody / Phosphatidylinositol transfer protein cytoplasmic 1 (FY12407)

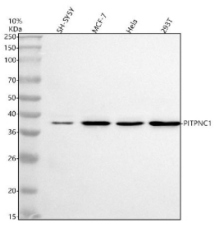
Catalog No.	Formulation	Size
FY12407	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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	Q9UKF7
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This PITPNC1 antibody is available for research use only.



Flow Cytometry analysis of MCF-7 cells using anti-PITPNC1 antibody. Overlay histogram showing MCF-7 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-PITPNC1 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of PITPNC1 using anti-PITPNC1 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human SH-SY5Y whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human 293T 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-PITPNC1 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 an ECL Plus Western Blotting Substrate. The expected molecular weight of PITPNC1 is ~38 kDa.

Description

The PITPNC1 antibody targets Phosphatidylinositol transfer protein, cytoplasmic 1, an intracellular lipid-binding protein encoded by the PITPNC1 gene. This protein regulates phosphoinositide signaling and lipid transport between membrane compartments. Phosphatidylinositol transfer protein, cytoplasmic 1 contributes to Golgi function, vesicular trafficking, and lipid-mediated signaling cascades. The PITPNC1 antibody enables specific detection of this protein in studies exploring cell signaling, membrane dynamics, and cancer metastasis.

Phosphatidylinositol transfer protein, cytoplasmic 1 binds phosphatidylinositol (PI) and phosphatidic acid (PA) and facilitates lipid exchange between Golgi and plasma membranes. It helps maintain phosphoinositide composition essential for vesicle budding and membrane identity. The PITPNC1 antibody supports localization studies revealing its enrichment at Golgi membranes and cytoplasmic vesicles. Through regulation of phosphoinositide pools, PITPNC1 coordinates signaling events that control secretion and membrane remodeling.

Recent research has shown that elevated PITPNC1 expression enhances tumor cell secretion and metastasis by increasing Golgi activity and secretion of pro-invasive factors such as MMP1 and HTRA1. The PITPNC1 antibody is a crucial reagent for investigating these mechanisms and assessing protein levels in metastatic cancer tissues. Its detection enables evaluation of how lipid signaling supports tumor cell migration and invasion through altered vesicle trafficking.

Phosphatidylinositol transfer protein, cytoplasmic 1 also functions in insulin secretion and lipid homeostasis, highlighting its importance beyond oncology. The PITPNC1 antibody supports studies into these metabolic processes by enabling detection in endocrine cells and liver tissues. Altered PITPNC1 expression may influence lipid droplet formation and phosphatidylinositol-dependent signaling in metabolic diseases.

The PITPNC1 antibody performs effectively in western blotting, immunofluorescence, and immunohistochemistry, providing characteristic Golgi-associated staining. NSJ Bioreagents supplies this antibody with validated specificity and reproducibility for use in membrane biology, cancer, and lipid metabolism research. By enabling detailed investigation of Phosphatidylinositol transfer protein, cytoplasmic 1, the PITPNC1 antibody advances understanding of lipid trafficking, secretion control, and phosphoinositide signaling in physiology and disease.

Application Notes

Optimal dilution of the PITPNC1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human PITPNC1 recombinant protein (Position: E59-E332) was used as the immunogen for the PITPNC1 antibody.

Storage

After reconstitution, the PITPNC1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at

-20oC. Avoid repeated freezing and thawing.