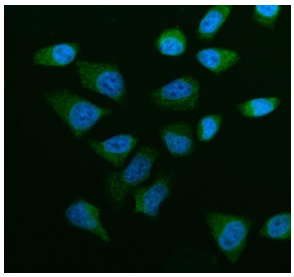
# OSBPL5 Antibody / Oxysterol-binding protein-related protein 5 (FY12509)

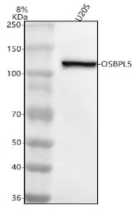
| Catalog No. | Formulation | Size |
|---|---|---|
| FY12509 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml | 100 ug |

**Bulk quote request**

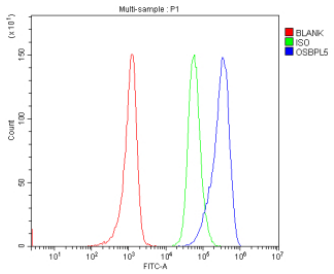
| | |
|---|---|
| **Availability** | 1-2 days |
| **Species Reactivity** | Human |
| **Format** | Lyophilized |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Immunogen affinity purified |
| **Buffer** | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| **UniProt** | Q9H0X9 |
| **Applications** | Western Blot: 0.25-0.5ug/ml<br>Immunocytochemistry/Immunofluorescence: 5ug/ml<br>Flow cytometry: 1-3ug/million cells<br>ELISA: 0.1-0.5ug/ml |
| **Limitations** | This OSBPL5 antibody is available for research use only. |



Immunofluorescent staining of OSBPL5 using anti-OSBPL5 antibody (green). OSBPL5 was detected in an immunocytochemical section of HELA cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/ml rabbit anti-OSBPL5 antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. The section was counterstained with DAPI nuclear stain (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.




Western blot analysis of OSBPL5 using anti-OSBPL5 antibody. Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human U20S 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-OSBPL5 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. OSBPL5 ORP5 (~99 kDa predicted) was detected at ~110 kDa, in line with published descriptions of ORP5 as a tail-anchored ER protein and with documented SDS-PAGE upshifts for ORP family members due to phosphorylation and domain composition. Independent WB validations also report observed OSBPL5 at ~110-120 kDa.




Flow Cytometry analysis of MOLT-4 cells using anti-OSBPL5 antibody. Overlay histogram showing MOLT-4 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-OSBPL5 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.

## Description

OSBPL5 antibody detects Oxysterol-binding protein-related protein 5, a lipid transfer protein involved in cholesterol and phospholipid exchange between organelles. OSBPL5 belongs to the oxysterol-binding protein (OSBP) family that mediates lipid homeostasis and endoplasmic reticulum-plasma membrane tethering. The OSBPL5 antibody is used in studies of lipid metabolism, organelle communication, and membrane dynamics.

OSBPL5 is encoded by the OSBPL5 gene located on human chromosome 11q13.1. The protein is approximately 100 kilodaltons and contains a pleckstrin homology (PH) domain, a FFAT motif, and a C-terminal OSBP-like sterol-binding domain. OSBPL5 localizes to membrane contact sites between the endoplasmic reticulum and late endosomes or mitochondria, where it regulates non-vesicular lipid transport.

The OSBPL5 antibody detects a 100 kilodalton band on western blot and exhibits punctate cytoplasmic staining. Functional studies show that OSBPL5 participates in cholesterol redistribution and phosphatidylserine transport, thereby influencing membrane composition and signaling. It also regulates autophagy and mitochondrial dynamics by modulating lipid exchange at organelle interfaces.

OSBPL5 plays roles in metabolism, growth regulation, and reproduction, with high expression in liver, testis, and brain. Dysregulation has been linked to metabolic disorders, including insulin resistance and obesity. NSJ Bioreagents provides a validated OSBPL5 antibody, supporting research into lipid trafficking, membrane homeostasis, and organelle interaction.

## Application Notes

Optimal dilution of the OSBPL5 antibody should be determined by the researcher.

## Immunogen

E.coli-derived human OSBPL5 recombinant protein (Position: R26-K879) was used as the immunogen for the OSBPL5

antibody.

## Storage

After reconstitution, the OSBPL5 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.


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