abcam

ab59016

Anti-OSBPL5/ORP5 antibody

Key facts

Isotype	IgG
Host species	Goat
Storage buffer	pH: 7.3 Preservative: 0.02% Sodium azide Constituents: 0.5% BSA, 0.5% Tris buffered saline
Form	Liquid
Clonality	Polyclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Purification technique	Affinity purification Immunogen
Specificity	This antibody is expected to recognise both reported isoforms (NP_065947.1; NP_663613.1).
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	5 µg/mL
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	0.03-0.3 µg/mL
Notes	-

Species	Rat
Dilution info	0.03-0.3 µg/mL
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information OSBPL5

Function	Lipid transporter involved in lipid countertransport between the endoplasmic reticulum and the plasma membrane: specifically exchanges phosphatidylserine with phosphatidylinositol 4-phosphate (PI4P), delivering phosphatidylserine to the plasma membrane in exchange for PI4P, which is degraded by the SAC1/SACM1L phosphatase in the endoplasmic reticulum. Binds phosphatidylserine and PI4P in a mutually exclusive manner (PubMed:23934110, PubMed:26206935). May cooperate with NPC1 to mediate the exit of cholesterol from endosomes/lysosomes (PubMed:21220512). Binds 25-hydroxycholesterol and cholesterol (PubMed:17428193).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	OSBPL5 also known as ORP5 is a member of the oxysterol-binding protein (OSBP) family. This protein weighs approximately 99 kDa and is expressed in various tissues including the liver and the brain. OSBPL5 functions primarily as a lipid transfer protein playing a mechanical role in maintaining lipid homeostasis at membrane contact sites. It facilitates the transfer of phosphatidylserine and phosphatidylinositol-4-phosphate between membranes which is essential for cellular lipid regulation.
Biological function summary	The OSBP-like protein OSBPL5 is involved in cellular processes such as membrane trafficking and signal transduction. OSBPL5 is a part of the larger OSBP-related protein complex which regulates lipid interactions and distribution in cells. It influences vesicular transport and is implicated in the modulation of signaling pathways that govern cell growth and development.
Pathways	OSBPL5 functions in the phosphoinositide signaling and lipid metabolic pathways. It plays an important role in the transfer of lipids between the endoplasmic reticulum and other organelles impacting the regulation of phosphatidylinositol at

	the plasma membrane. OSBPL5 interacts with proteins like PI4KIIIα to regulate these processes. This interaction is important for maintaining cellular lipid dynamics necessary for various physiological functions.
Associated diseases and disorders	OSBPL5's lipid transfer function associates with metabolic disorders like non-alcoholic fatty liver disease (NAFLD). Disruptions in lipid homeostasis by OSBPL5 can lead to excessive lipid accumulation in liver cells. Additionally OSBPL5 may have implications in neurological disorders given its expression in the brain alongside proteins such as APP that are involved in similar pathways. Understanding its role could provide insights into these diseases potentially aiding in therapeutic interventions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

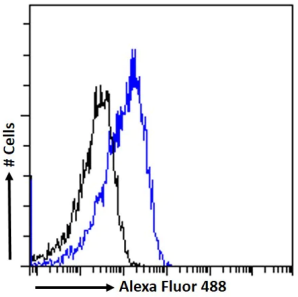
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

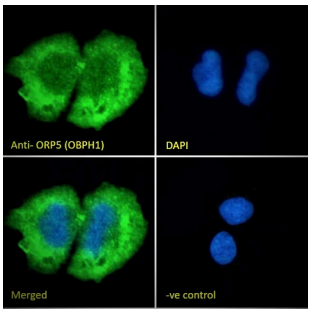
Full details and terms and conditions can be found here:
Terms & Conditions.

5 product images



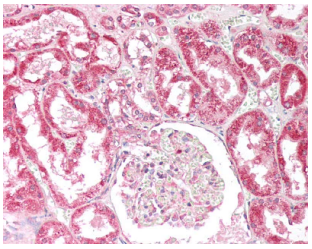
Flow Cytometry - Anti-OSBPL5/ORP5 antibody (ab59016)

ab59016 Flow cytometric analysis of paraformaldehyde fixed HeLa cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



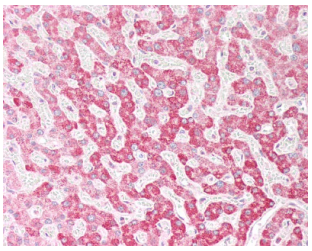
Immunocytochemistry/ Immunofluorescence - Anti-OSBPL5/ORP5 antibody (ab59016)

ab59016 Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).



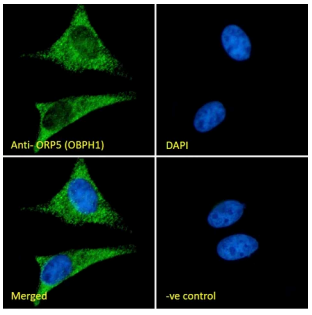
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-OSBPL5/ORP5 antibody (ab59016)

ab59016 (5µg/ml) staining of paraffin embedded Human Kidney. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-OSBPL5/ORP5 antibody (ab59016)

ab59016 (5µg/ml) staining of paraffin embedded Human Liver. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



Immunocytochemistry/ Immunofluorescence - Anti-OSBPL5/ORP5 antibody (ab59016)

ab59016 Immunofluorescence analysis of paraformaldehyde fixed HeLa cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.