abcam

ab315476

Anti-Perilipin 3/TIP47 antibody [EPR28801-93]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR28801-93
Purification technique	Affinity purification Protein A
Concentration	0.518 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information PLIN3

Function	Structural component of lipid droplets, which is required for the formation and maintenance of lipid storage droplets (PubMed:34077757). Required for the transport of mannose 6-phosphate receptors (MPR) from endosomes to the trans-Golgi network (PubMed:9590177).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
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

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

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

Activity summary	Perilipin 3 also known as TIP47 is a lipid droplet-associated protein with a molecular weight of approximately 47 kDa. This protein expresses in a variety of tissues especially those involved in lipid metabolism like adipose tissue and liver. Perilipin 3 localizes on the surface of lipid droplets where it plays an important role in managing lipid storage and mobilization. This protein interacts directly with the lipid droplet surface facilitating stabilization and regulation of lipid content.
Biological function summary	Perilipin 3 acts as a mediator in lipid droplet dynamics and is part of the perilipin family of proteins. These proteins are key modulators of lipid storage and release ensuring balance within lipid metabolism. Perilipin 3 does not form a complex but has functional interactions with other perilipin proteins like perilipin 1 and perilipin 2 which synergize in the regulation of lipid droplets. This interaction ensures the efficiency of lipid metabolism processes and energy homeostasis in cells.
Pathways	Perilipin 3 participates in lipid metabolism and energy homeostasis pathways. It works alongside proteins such as adipose triglyceride lipase (ATGL) and hormone-sensitive lipase (HSL) to manage the lipolytic process. This involves the breakdown of stored triglycerides into free fatty acids and glycerol. The protein is integral in the regulation of lipid storage and catabolism pathways facilitating energy release during increased energy demand conditions.
Associated diseases and disorders	Perilipin 3 has connections to metabolic diseases such as obesity and lipid storage disorders. Aberrant function or expression of perilipin 3 can lead to disrupted lipid metabolism and contribute to these conditions. Research shows that perilipin 3 works with proteins like ATGL in these contexts as alterations in their activities

affect lipid handling. Understanding the role of perilipin 3 in these disorders can lead to better therapeutic strategies targeting metabolic dysfunctions.

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

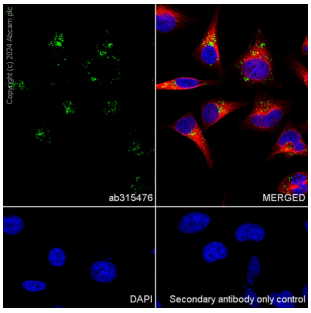
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images



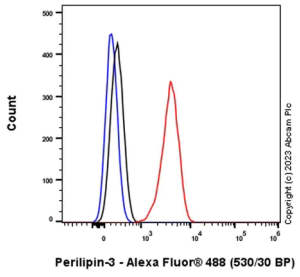
Immunocytochemistry/ Immunofluorescence - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cells labelling Perilipin 3/TIP47 with ab315476 at 1/1000 (0.518 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 ug/mL) dilution (Green).

Confocal image showing cytoplasmic staining in HeLa cell line. Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 (2.5ug/ml) dilution (Red). The Nuclear counterstain was DAPI (Blue).

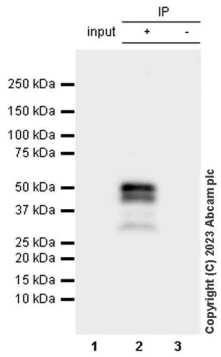
Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution.



Flow Cytometry (Intracellular) - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling Perilipin 3/TIP47 with ab315476 at 1/50 dilution (1 ug)/Red compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476)

Perilipin 3/TIP47 was immunoprecipitated from 0.35 mg HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate with ab315476 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab315476 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 2: ab315476 IP in HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab315476 in HeLa whole cell lysate

The bands beneath the target band (47 kDa) are likely to be degraded target fragments in lane 2.

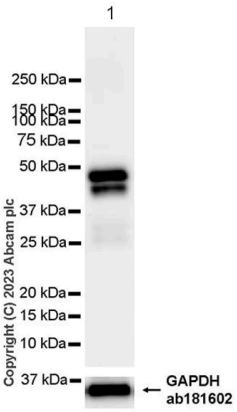
All lanes:
Immunoprecipitation - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476) at 1/30 dilution

All lanes:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 15s



Western blot - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476)

Perilipin 3/TIP47 Western blot staining of Human placenta tissue lysate using rabbit Anti-Perilipin 3/TIP47 antibody

The bands beneath the target band (47 kDa) are likely to be degraded target fragments.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476) at 1/1000 dilution

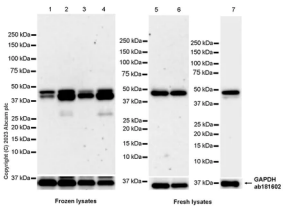
All lanes:
Human placenta tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Observed band size: 47 kDa, 36 kDa

Exposure time: 15s



Western blot - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476)

Perilipin 3/TIP47 Western blot staining using rabbit Anti-Perilipin 3/TIP47 antibody

In lanes 1-4, the lysates were stored at -80°C prior to Western Blotting. The bands beneath the target band (47 kDa) are likely to be degradation products. In lanes 5-7, the lysates were freshly made and used for Western Blotting immediately to minimize protein degradation.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

Exposure time: Lanes 1-6: 180 seconds, lane 7: 26 seconds.

All lanes:
Western blot - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476) at 1/1000 dilution

Lanes 1 and 5:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lanes 2 and 7:
Daudi (human Burkitts lymphoma lymphoblast) whole cell lysate at 20 µg

Lane 3:
K562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate at 20 µg

Lane 4:
THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

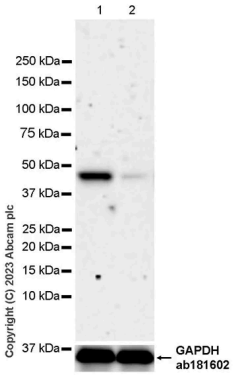
Lane 6:

293T (human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 47 kDa, 36 kDa



Western blot - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476)

Perilipin 3/TIP47 Western blot staining using rabbit Anti-Perilipin 3/TIP47 antibody

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-Perilipin 3/TIP47 antibody [EPR28801-93] (ab315476) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
HeLa transfected with siRNA specifically targeting Perilipin 3 whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 47 kDa, 36 kDa

Exposure time: 180s

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