abcam

ab181452

Anti-Perilipin-2 antibody [2C5H8]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human PLIN2 aa 250 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link Q99541
Clone number	2C5H8
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/200 - 1/400

Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Predicted

Species	Cow
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate
Dilution info	-
Notes	-

WB

Tested

Species	Transfected cell lysate
Dilution info	1/500 - 1/2000
Notes	-

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Predicted

Species	Cow
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/200 - 1/1000
Notes	-

Predicted

Species	Cow
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/200 - 1/1000
Notes	-

Predicted

Species	Cow
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate
Dilution info	-
Notes	-

Target data

See full target information PLIN2

Function	Structural component of lipid droplets, which is required for the formation and maintenance of lipid storage droplets.

Storage

Shipped at conditions	Blue Ice
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

This product was changed from ascites to supernatant. Lot no's high than GR197175-12 are from Tissue Culture Supernatant

Supplementary info

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

Activity summary	The protein Perilipin-2 also known as PLIN2 ADFP or adipophilin has an approximate molecular weight of 48 kDa. It is primarily expressed in tissues involved in lipid metabolism like adipose tissue liver and muscle. The main role of Perilipin-2 is to coat lipid droplets in cells thereby regulating lipid storage and breakdown. This protein serves as a critical component of the lipid droplet surface providing structure and protecting the lipid core from excessive unregulated lipolysis.
Biological function summary	Perilipin-2 is a member of the PAT family proteins involved in lipid droplet formation and maintenance. It does not typically form part of larger complexes but it plays a significant role in cellular energy regulation by controlling lipid reserves. This regulation ensures an efficient balance between energy storage and

	mobilization. The presence and levels of Perilipin-2 can influence how cells respond to nutrients particularly during periods of energy surplus or fasting.
Pathways	Perilipin-2 is heavily involved in the regulation of lipid metabolic pathways and the storage-related signaling cascades. It interacts with key metabolic proteins including hormone-sensitive lipase (HSL) to modulate lipolysis. By doing so Perilipin-2 influences processes like fatty acid mobilization and glycerol release integrating perfectly into the cellular energy balance system. The protein is also related to perilipin another member of the lipid droplet-associated proteins emphasizing its participation in lipid metabolism.
Associated diseases and disorders	Altered expression of Perilipin-2 can have implications in obesity and fatty liver disease. The protein is involved in the accumulation of lipid droplets which is a common feature in these conditions. Obesity and associated disorders often show elevated levels of Perilipin-2 which mirrors increased lipid storage capacity. The protein's interplay with adipose tissue composition highlights its connection to obesity-related factors including other lipid droplet-associated proteins like adipose triglyceride lipase (ATGL) which influence the progression of metabolic diseases.

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

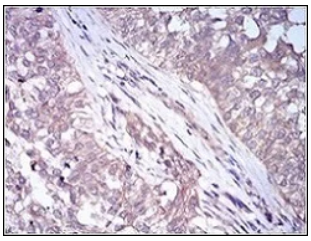
We do not recommend this combination. It is not covered by our product promise.

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.

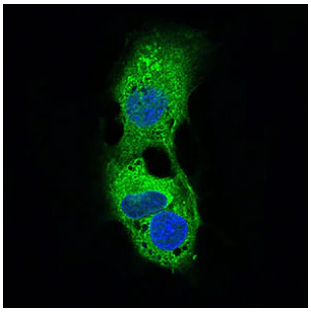
7 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Perilipin-2 antibody [2C5H8] (ab181452)

Perilipin-2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Perilipin-2 antibody

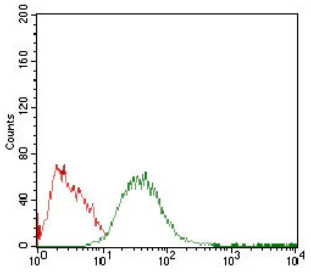
Immunohistochemical analysis of paraffin-embedded Human bladder cancer tissue labeling Perilipin-2 with ab181452 at 1/200 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Perilipin-2 antibody [2C5H8] (ab181452)

Perilipin-2 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Perilipin-2 antibody

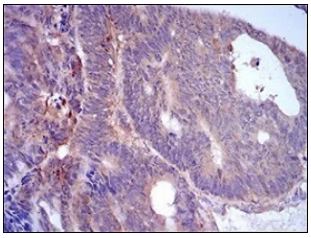
Immunofluorescent analysis of HepG2 cells labeling Perilipin-2 with ab181452 (green) at 1/200 dilution. Blue: DRAQ5 fluorescent DNA dye.



Flow Cytometry - Anti-Perilipin-2 antibody [2C5H8] (ab181452)

Perilipin-2 Flow Cytometry staining using mouse Anti-Perilipin-2 antibody

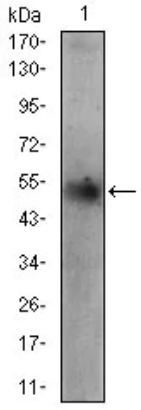
Flow cytometric analysis of HepG2 cells labeling Perilipin-2 with ab181452 (green) at 1/200 dilution, and negative control (red).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Perilipin-2 antibody [2C5H8] (ab181452)

Perilipin-2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Perilipin-2 antibody

Immunohistochemical analysis of paraffin-embedded Human rectum cancer tissue labeling Perilipin-2 with ab181452 at 1/200 dilution.



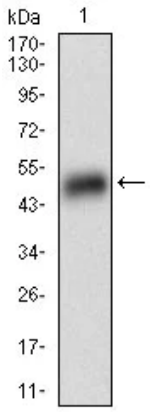
Western blot - Anti-Perilipin-2 antibody [2C5H8] (ab181452)

Perilipin-2 Western blot staining of HepG2 cell lysate using mouse Anti-Perilipin-2 antibody

All lanes:
Western blot - Anti-Perilipin-2 antibody [2C5H8] (ab181452) at 1/500 dilution

All lanes:
HepG2 cell lysate

Predicted band size: 48 kDa



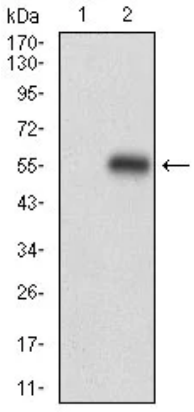
Western blot - Anti-Perilipin-2 antibody [2C5H8] (ab181452)

Perilipin-2 Western blot staining of Perilipin-2 recombinant protein using mouse Anti-Perilipin-2 antibody

All lanes:
Western blot - Anti-Perilipin-2 antibody [2C5H8] (ab181452) at 1/500 dilution

All lanes:
Perilipin-2 recombinant protein

Predicted band size: 48 kDa



Western blot - Anti-Perilipin-2 antibody [2C5H8] (ab181452)

Perilipin-2 Western blot staining using mouse Anti-Perilipin-2 antibody

All lanes:
Western blot - Anti-Perilipin-2 antibody [2C5H8] (ab181452) at 1/500 dilution

Lane 1:
HEK293 cell lysate

Lane 2:
Perilipin-2-transfected HEK293 cell lysate

Predicted band size: 48 kDa

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