abcam

ab133497

Anti-Flotillin 1 antibody [EPR6041]

Anti-Flotillin 1 antibody [EPR6041] (ab133497) is a rabbit monoclonal antibody detecting Flotillin 1 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 60 publications

Recombinant | RabMAb | KO Validated | 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	EPR6041
Purification technique	Affinity purification Protein A
Concentration	0.536 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Expected

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

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/10000 - 1/50000
Notes	-

Species	Rat
Dilution info	1/10000 - 1/50000
Notes	-

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

Target data

See full target information FLOT1

Function	May act as a scaffolding protein within caveolar membranes, functionally participating in formation of caveolae or caveolae-like vesicles.

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	Stable for 12 months at -20°C

Notes

What is this antibody validated in?
Anti-Flotillin 1 antibody [EPR6041] (ab133497) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of Flotillin 1?
Anti-Flotillin 1 [EPR6041] (ab133497) specifically detects a band for Flotillin 1 (UniProt: O75955) at a molecular weight of 47kDa.

Trusted by the scientific community
Anti-Flotillin 1 [EPR6041] (ab133497) was first used in a scientific publication in 2012 and has been cited over 60 times in peer-reviewed journals.

Reviewed by scientists
Anti-Flotillin 1 [EPR6041] (ab133497) has over 5 independent reviews from customers.

Specificity confirmed
The specificity of Anti-Flotillin 1 antibody [EPR6041] (ab133497) has been confirmed by Western blot testing in FLOT1 Knockout HAP1 cell line, ab267276.

Other related products
We have a range of other formats of antibody clone [EPR6041] also available for your convenience: ab133497, APC - ab225164, PE - ab225165, Carrier free - ab232405

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

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

Activity summary	Flotillin 1 also known as flotillin-1 or flot-1 functions as a major scaffolding protein in lipid rafts which are specialized membrane microdomains. It has a molecular weight of approximately 47 kDa facilitating protein interactions within the cell membrane. Flotillin 1 localizes primarily to non-caveolar lipid rafts and is expressed widely across various tissue types. High expression levels occur in brain tissue contributing to its recognition as an important element within neuronal membranes.
Biological function summary	Flotillin-1 participates in vesicle trafficking and endocytosis by forming a complex with its counterpart flotillin-2. This complex stabilizes membrane microdomains and assists in signaling pathways. Flotillin-1 plays a significant role in cell adhesion migration and cytoskeleton organization by interacting with actin and other cytoskeletal proteins. By doing so it influences cellular processes related to membrane shaping and intracellular transport.
Pathways	Flotillin-1 integrates into the MAPK signaling pathway and the Wnt signaling pathway which are critical for cell differentiation and proliferation. It interacts with several proteins including caveolin-1 that have known roles in these pathways. These interactions help modulate signaling cascades providing necessary cellular responses to various extracellular stimuli.
Associated diseases and disorders	Flotillin-1 has associations with Alzheimer's disease and various cancers. In Alzheimer's disease it interacts with amyloid precursor protein influencing amyloid-beta production and deposition. In cancer altered expression levels of flotillin-1 affect tumor cell adhesion and migration with its interactions impacting the expression of proteins like E-cadherin which is associated with cancer metastasis and progression. Understanding these interactions offers potential insights for developing therapeutic strategies.

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.

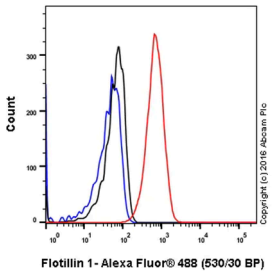
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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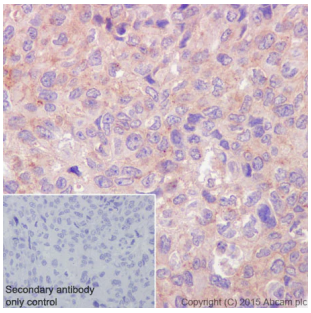
10 product images



Flow Cytometry (Intracellular) - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Flotillin 1 Flow Cytometry (Intracellular) staining using rabbit Anti-Flotillin 1 antibody

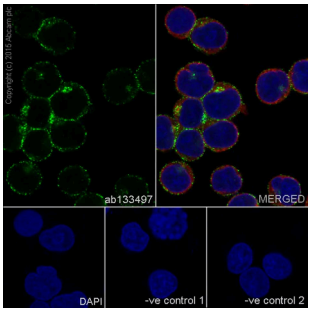
Intracellular Flow Cytometry analysis of Jurkat (human acute T cell leukemia) cells labeling Flotillin 1 with purified ab133497 at 1/50 dilution (10ug/mL) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluorr®488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) was used as the unlabeled control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Flotillin 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Flotillin 1 antibody

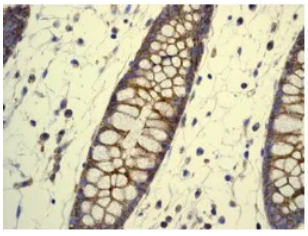
Immunohistochemical staining of paraffin embedded human cervical carcinoma with purified ab133497 at a working dilution of 1/100. The secondary antibody used is HRP goat anti-rabbit IgG H&L (ab97051) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Immunocytochemistry/ Immunofluorescence - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Flotillin 1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Flotillin 1 antibody

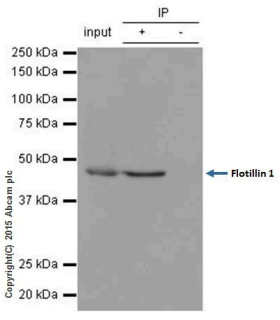
Immunofluorescence staining of Jurkat cells with purified ab133497 at a working dilution of 1/500, counter-stained with DAPI. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit (ab150077), used at a dilution of 1/1000. ab7291, a mouse anti-tubulin antibody (1/1000), was used to stain tubulin along with ab150120 (Alexa Fluor® 594 goat anti-mouse, 1/1000), shown in the top right hand panel. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom middle and right hand panels - for negative control 1, purified ab133497 was used at a dilution of 1/500 followed by an Alexa Fluor® 594 goat anti-mouse antibody (ab150120) at a dilution of 1/500. For negative control 2, ab7291 (mouse anti-tubulin) was used at a dilution of 1/500 followed by an Alexa Fluor® 488 goat anti-rabbit antibody (ab150077) at a dilution of 1/400.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Flotillin 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Flotillin 1 antibody

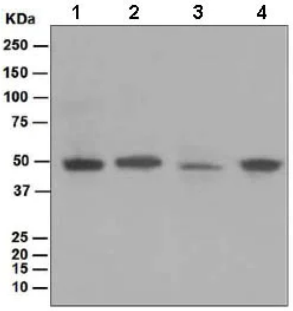
Immunohistochemical analysis of paraffin embedded Human colon tissue labelling Flotillin 1 using unpurified ab133497 at a dilution of 1/100.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

ab133497 (purified) at 1/60 immunoprecipitating Flotillin 1 in 10 µg K562 (Lanes 1 and 2, observed at 48 kDa). Lane 3 - PBS. For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the secondary antibody (1/1500). Blocking buffer and concentration: 5% NFDM/TBST Dilution buffer and concentration: 5% NFDM/TBST
All lanes:
Immunoprecipitation - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Predicted band size: 42 kDa, 47 kDa



Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

All lanes:
Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497) at 1/10000 dilution

Lane 1:
K562 cell lysate at 10 µg

Lane 2:
A431 cell lysate at 10 µg

Lane 3:
Jurkat cell lysate at 10 µg

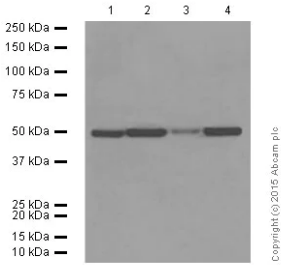
Lane 4:
HeLa cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 47 kDa

Observed band size: 48 kDa



Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Flotillin 1 Western blot staining using rabbit Anti-Flotillin 1 antibody

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST

All lanes:
Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497) at 1/10000 dilution

Lane 1:
K562 cell lysate at 20 µg

Lane 2:
A431 cell lysate at 20 µg

Lane 3:
Jurkat cell lysate at 20 µg

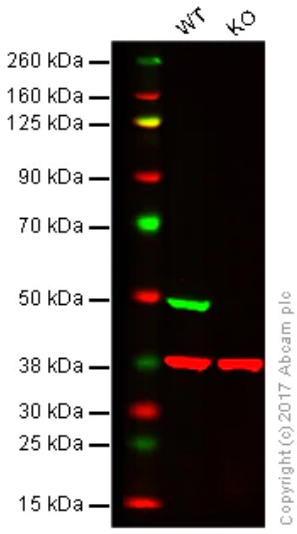
Lane 4:
HeLa cell lysate at 20 µg

Secondary

All lanes:
HRP goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 47 kDa

Observed band size: 48 kDa



Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Flotillin 1 Western blot staining using rabbit Anti-Flotillin 1 antibody

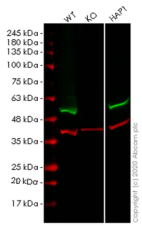
Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: Flotillin 1 knockout HAP1 whole cell lysate (20 µg)
Lanes 1 - 2: Merged signal (red and green). Green - ab133497 observed at 47 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab133497 was shown to specifically react with Flotillin 1 in wild-type HAP1 cells as signal was lost in Flotillin 1 knockout cells. Wild-type and Flotillin 1 knockout samples were subjected to SDS-PAGE. ab133497 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/10000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Predicted band size: 47 kDa

Observed band size: 62 kDa



Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Flotillin 1 Western blot staining using rabbit Anti-Flotillin 1 antibody

Lanes 1-3: Merged signal (red and green). Green - ab133497 observed at 50 kDa. Red - loading control ab8245 observed at 36 kDa.
ab133497 Anti-Flotillin 1 antibody [EPR6041] was shown to specifically react with Flotillin 1 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line ab267276 (knockout cell lysate ab257109) was used. Wild-type and Flotillin 1 knockout samples were subjected to SDS-PAGE. ab133497 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497) at 1/1000 dilution

Lane 1:
Wild-type HEK293T cell lysate at 20 µg

Lane 2:
Western blot - Human FLOT1 (Flotillin 1) knockout HEK-293T cell lysate (ab257109) at 20 µg

Lane 3:
HAP1 cell lysate at 20 µg

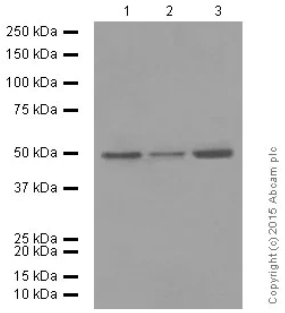
Secondary

Lanes 1 - 3:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/20000 dilution

Lanes 1 - 3:
Western blot - Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) at 1/20000 dilution

Predicted band size: 47 kDa

Observed band size: 50 kDa, 36 kDa



Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497)

Flotillin 1 Western blot staining using rabbit Anti-Flotillin 1 antibody

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST

All lanes:
Western blot - Anti-Flotillin 1 antibody [EPR6041] (ab133497) at 1/10000 dilution

Lane 1:
mouse brain lysate at 20 µg

Lane 2:
mouse kidney lysate at 20 µg

Lane 3:
rat kidney lysate at 20 µg

Secondary

All lanes:
HRP goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 47 kDa

Observed band size: 48 kDa

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