abcam

ab251337

Anti-AP3M1 antibody [EPR16385] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR16385
Purification technique	Affinity purification Protein A
Specificity	The immunogen used for this product ab251337 shares 78% homologue with AP3M2. (AP-3 complex subunit mu-2). Cross-reactivity with this protein has not been confirmed experimentally.

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information AP3M1

Function	Part of the AP-3 complex, an adaptor-related complex which is not clathrin-associated. The complex is associated with the Golgi region as well as more peripheral structures. It facilitates the budding of vesicles from the Golgi membrane and may be directly involved in trafficking to lysosomes. In concert with the BLOC-1 complex, AP-3 is required to target cargos into vesicles assembled at cell bodies for delivery into neurites and nerve terminals.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab251337 is the carrier-free version of ab201227.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	AP3M1 also known as AP-3 complex subunit mu is an important component of the adaptor protein 3 (AP-3) complex. It has a molecular weight of approximately 46 kilodaltons. This protein is expressed in various tissues including neuronal and immune cells indicating its wide-reaching roles in cellular functions. AP3M1 participates actively in cargo recognition and vesicle formation playing a substantial role in the transport and sorting of membrane proteins to specialized compartments within cells.
Biological function summary	The AP3M1 protein integrates into the adaptor protein 3 (AP-3) complex which is important for the trafficking of lysosomal membrane proteins. AP3M1 contributes to assembly and stabilization of the AP-3 complex facilitating the recruitment of clathrin and membrane-bound receptors. This indicates the protein's essential role in the maintenance of cellular homeostasis and intracellular protein traffic impacting the delivery of proteins necessary for lysosomal function and integrity.
Pathways	AP3M1 finds importance in the endosomal-lysosomal pathway and is connected to various cellular processes that manage degradation and recycling of cellular materials. This protein collaborates with other AP-3 complex subunits such as

	AP3B1 to ensure proper lysosome-related organelles biogenesis. Furthermore AP3M1 intersects with the BLOC-1 (biogenesis of lysosomal organelles complex 1) pathway highlighting its involvement in trafficking and organelle organization specifically in melanosomes and platelet dense granules.
Associated diseases and disorders	AP3M1 has associations with Hermansky-Pudlak syndrome type 2 and immunodeficiencies. Mutations affecting the AP3M1 function can lead to pigmentary anomalies and immunological defects related to improper lysosomal trafficking. The dysfunction of AP3M1 alongside AP3B1 illustrates its critical role in these diseases as both contribute to the effective formation and function of lysosome-related organelles.

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

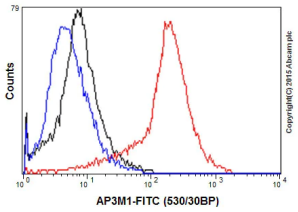
We do not recommend this combination. It is not covered by our product promise.

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.

3 product images

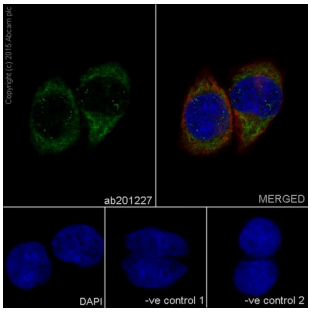


Flow Cytometry (Intracellular) - Anti-AP3M1 antibody [EPR16385] - BSA and Azide free (ab251337)

AP3M1 Flow Cytometry (Intracellular) staining using rabbit Anti-AP3M1 antibody

This data was developed using ab201227, the same antibody clone in a different buffer formulation.

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed HEK293 (Human embryonic kidney) cells labeling AP3M1 with ab201227 at 1/60 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.

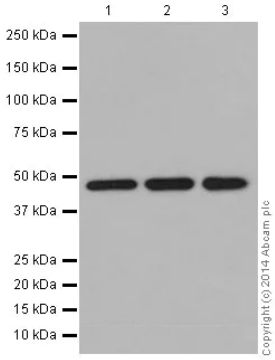


Immunocytochemistry/ Immunofluorescence - Anti-AP3M1 antibody [EPR16385] - BSA and Azide free (ab251337)

AP3M1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-AP3M1 antibody

This data was developed using ab201227, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling AP3M1 with ab201227 at 1/250 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Confocal image showing cytoplasmic staining on HeLa cell line. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).

The negative controls are as follows:
-ve control 1: ab201227 at 1/250 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.



Western blot - Anti-AP3M1 antibody [EPR16385] - BSA and Azide free (ab251337)

AP3M1 Western blot staining using rabbit Anti-AP3M1 antibody

This data was developed using ab201227, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-AP3M1 antibody [EPR16385] (ab201227) at 1/5000 dilution

Lane 1:
HeLa (Human epithelial cells from cervix adenocarcinoma) cell lysate at 20 µg

Lane 2:
HEK-293 (Human embryonic kidney) cell lysate at 20 µg

Lane 3:
Human fetal brain tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 47 kDa

Observed band size: 47 kDa

Exposure time: 10s

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