abcam

ab247326

Anti-Mark3 antibody [EPR633Y] - BSA and Azide free

Recombinant | RabMAb | KO Validated

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	EPR633Y
Purification technique	Affinity purification Protein A
Concentration	1.001 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information MARK3

Function

Serine/threonine-protein kinase (PubMed:16822840, PubMed:16980613, PubMed:23666762). Involved in the specific phosphorylation of microtubule-associated proteins for MAP2 and MAP4. Phosphorylates the microtubule-associated protein MAPT/TAU (PubMed:23666762). Phosphorylates CDC25C on 'Ser-216' (PubMed:12941695). Regulates localization and activity of some histone deacetylases by mediating phosphorylation of HDAC7, promoting subsequent interaction between HDAC7 and 14-3-3 and export from the nucleus (PubMed:16980613). Regulates localization and activity of MITF by mediating its phosphorylation, promoting subsequent interaction between MITF and 14-3-3 and retention in the cytosol (PubMed:16822840). Negatively regulates the Hippo signaling pathway and antagonizes the phosphorylation of LATS1. Cooperates with DLG5 to inhibit the kinase activity of STK3/MST2 toward LATS1 (PubMed:28087714). Phosphorylates PKP2 and KSR1 (PubMed:12941695).

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

ab247326 is the carrier-free version of ab52626.

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.

Species reactivity
Rat: We have preliminary internal testing data to indicate this antibody may not react with this species.
Please contact us for more information.

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.

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.

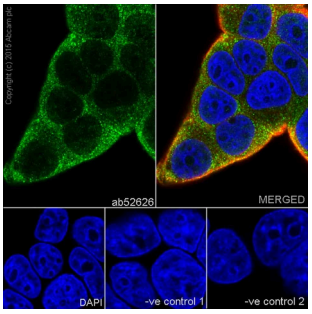
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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5 product images



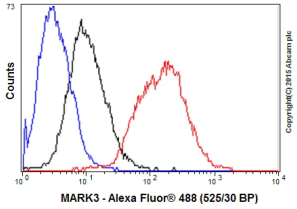
Immunocytochemistry/ Immunofluorescence - Anti-Mark3 antibody [EPR633Y] - BSA and Azide free (ab247326)

Mark3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Mark3 antibody

This data was developed using ab52626, the same antibody clone in a different buffer formulation. Immunocytochemistry/Immunofluorescence analysis of MCF-7 cells labelling Mark3 with purified ab52626 at a dilution of 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/100) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).

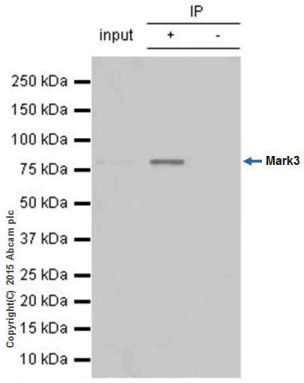


Flow Cytometry (Intracellular) - Anti-Mark3 antibody [EPR633Y] - BSA and Azide free (ab247326)

Mark3 Flow Cytometry (Intracellular) staining using rabbit Anti-Mark3 antibody

This data was developed using ab52626, the same antibody clone in a different buffer formulation. Intracellular Flow Cytometry analysis of HeLa cells labelling Mark3 with purified ab52626 at a dilution of 1/50 (red). Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. Black - Isotype control, rabbit

monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.



Immunoprecipitation - Anti-Mark3 antibody [EPR633Y] - BSA and Azide free (ab247326)

This data was developed using ab52626&

44; the same antibody clone in a different buffer formulation.

ab52626 (purified) at a dilution of 1/20 immunoprecipitating Mark3 in K562 whole cell lysate.

Lane 1 (input): K562 whole cell lysate (10µg).

Lane 2 (+): ab52626 + K562 whole cell lysate.

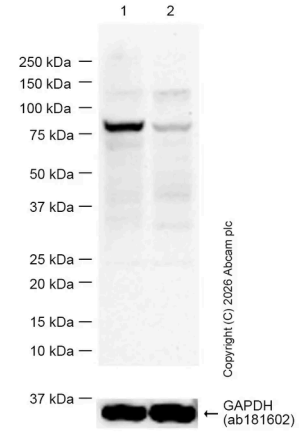
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab52626 in K562 whole cell lysate.

For western blotting, ab131366 VeriBlot for IP (HRP) was used for detection (1/1000). **Blocking and dilution buffer:** 5% NFDM/TBST.

All lanes:
Immunoprecipitation - Anti-Mark3 antibody [EPR633Y] (ab52626)

Predicted band size: 87 kDa

Observed band size: 86 kDa



Western blot - Anti-Mark3 antibody [EPR633Y] - BSA and Azide free (ab247326)

Mark3 Western blot staining using rabbit Anti-Mark3 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

This data was developed using ab52626, the same antibody clone in a different buffer formulation.

All lanes:
Western blot - Anti-Mark3 antibody [EPR633Y] (ab52626) at 1/1000 dilution

Lane 1:
K-562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate, at 20 µg

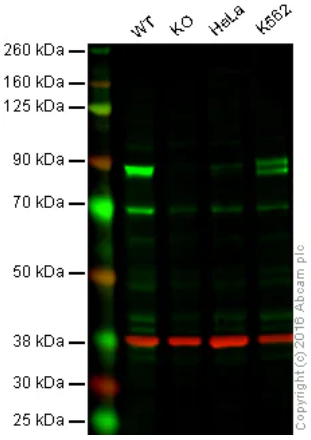
Lane 2:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

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

Observed band size: 87 kDa

Exposure time: 180s



Western blot - Anti-Mark3 antibody [EPR633Y] - BSA and Azide free (ab247326)

Mark3 Western blot staining using rabbit Anti-Mark3 antibody

This data was developed using ab52626, the same antibody clone in a different buffer formulation.
Lane 1: Wild-type HAP1 cell lysate (40 µg)

Lane 2: MARK3 knockout HAP1 cell lysate (40 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: K562 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab52626 observed at 85 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab52626 was shown to recognize Mark3 when Mark3 knockout samples were used, along with additional cross-reactive bands. Wild-type and Mark3 knockout samples were subjected to SDS-PAGE. ab52626 and ab8245 (loading control to GAPDH) were diluted at 1/1000 and 1:10,000 dilution respectively and incubated overnight at 4°C. 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 1:10,000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Mark3 antibody [EPR633Y] (ab52626)

Predicted band size: 87 kDa

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