

Anti-MELK antibody [EPR3981] - BSA and Azide free ab172889

KO VALIDATED

Recombinant

RabMAb

4 Images

Overview

Product name	Anti-MELK antibody [EPR3981] - BSA and Azide free
Description	Rabbit monoclonal [EPR3981] to MELK - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt, ICC/IF, IHC-P or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HCT116, HAP1, HeLa, K562, Jurkat and HEK-293T cell lysates.
General notes	<p>ab172889 is the carrier-free version of ab108529.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR3981
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab172889 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

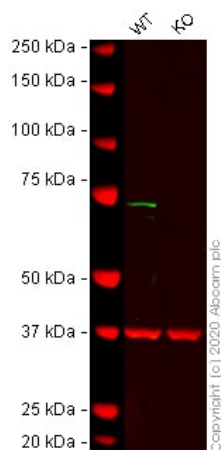
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 75 kDa.

Application notes Is unsuitable for Flow Cyt, ICC/IF, IHC-P or IP.

Target

Function	Phosphorylates ZNF622 and may contribute to its redirection to the nucleus. May be involved in the inhibition of spliceosome assembly during mitosis.
Tissue specificity	Expressed in placenta, kidney, thymus, testis, ovary and intestine.
Sequence similarities	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. SNF1 subfamily. Contains 1 KA1 (kinase-associated) domain. Contains 1 protein kinase domain.
Post-translational modifications	Autophosphorylated. Thr-478 phosphorylation during mitosis promotes interaction with PPP1R8.
Cellular localization	Cytoplasm.

Images



Western blot - Anti-MELK antibody [EPR3981] - BSA and Azide free (ab172889)

All lanes : Anti-MELK antibody [EPR3981] ([ab108529](#)) at 1/1000 dilution

Lane 1 : HCT116 cell lysate

Lane 2 : MELK knockout HCT116 cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

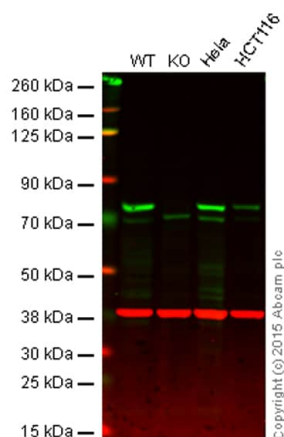
Predicted band size: 75 kDa

Observed band size: 75 kDa

This data was developed using the same antibody clone in a different buffer formulation ([ab108529](#)).

Lanes 1 - 2: Merged signal (red and green). Green - [ab108529](#) observed at 75 kDa. Red - loading control [ab8245](#) (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

[ab108529](#) was shown to react with MELK in wild-type HCT116 cells in western blot with loss of signal observed in MELK knockout cell line [ab266896](#) (MELK knockout cell lysate [ab257537](#)). Wild-type and MELK knockout HCT116 cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with [ab108529](#) and [ab8245](#) (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated 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 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-MELK antibody [EPR3981] - BSA and Azide free (ab172889)

This data was developed using [ab108529](#), the same antibody clone in a different buffer formulation.

Lane 1: Wild-type HAP1 cell lysate (20 µg)

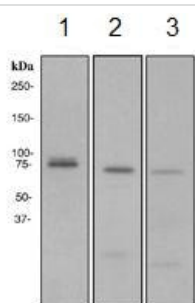
Lane 2: MELK knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: HCT116 cell lysate (20 µg)

Lanes 1 - 4 Merged signal (red and green). Green - [ab108529](#) observed at 75 kDa. Red - loading control, [ab8226](#), observed at 42 kDa.

[ab108529](#) was shown to recognize MELK when MELK knockout samples were used, along with additional cross-reactive bands. Wild-type and MELK knockout samples were subjected to SDS-PAGE. [ab108529](#) and [ab8226](#) (loading control to beta Actin) were both diluted 1/1000 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 h at room temperature before imaging.



Western blot - Anti-MELK antibody [EPR3981] - BSA and Azide free (ab172889)

All lanes : Anti-MELK antibody [EPR3981] ([ab108529](#)) at 1/1000 dilution

Lane 1 : K562 cell lysate

Lane 2 : 293T cell lysate

Lane 3 : Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

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

Predicted band size: 75 kDa

This data was developed using **ab108529**, the same antibody clone in a different buffer formulation.

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-MELK antibody [EPR3981] - BSA and Azide free (ab172889)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors