abcam

ab137023

Anti-PPM1E antibody [EPR8722]

Recombinant | RabMAb

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	EPR8722
Purification technique	Affinity purification Protein A

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100 - 1/500
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information PPM1E

Function Protein phosphatase that inactivates multifunctional CaM kinases such as CAMK4 and CAMK2 (By similarity). Dephosphorylates and inactivates PAK. May play a role in the inhibition of actin fiber stress breakdown and in morphological changes driven by TNK2/CDC42. Dephosphorylates PRKAA2 (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Notes

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

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.

Supplementary info

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

Activity summary	PPM1E also known as protein phosphatase M or POPX1 is a serine/threonine phosphatase with a molecular mass of approximately 82 kDa. It is expressed in various tissues including the brain muscle and heart. PPM1E dephosphorylates its substrates thereby regulating their activities. The enzyme negatively affects phosphorylation-dependent signaling pathways which impacts several biological processes. Its wide expression pattern indicates a broad role in cellular function.
Biological function summary	PPM1E associates with certain complexes that regulate cytoskeletal dynamics and cellular stress responses. It modulates proteins involved in actin cytoskeleton reorganization influencing cell motility and morphology. PPM1E interacts with and regulates targets like CaMKII and PAK which are essential for cell signaling and homeostasis. By acting on these targets PPM1E maintains balance in various cellular activities and processes.
Pathways	PPM1E regulates critical signaling pathways such as the MAPK and calcium/calmodulin-dependent protein kinase pathways. In the MAPK pathway PPM1E regulates signal transduction impacting cellular responses to proliferative signals. It also interacts with calcium/calmodulin-dependent protein kinase modulating calcium signaling which is important for maintaining cardiovascular and neuronal functions. These pathways highlight PPM1E's importance in cellular signaling networks and its interactions with other proteins like MEK and CaMKII.
Associated diseases and disorders	PPM1E links to neurological disorders and cancer. Changes in PPM1E expression or activity are associated with Alzheimer's disease with its regulatory function influencing proteins like tau an important player in neurodegeneration. In cancer altered PPM1E expression affects cell proliferation and survival often interacting with oncogenic proteins such as RAS. These associations underline the potential of PPM1E as a target for therapeutic strategies in diverse disease contexts.

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.

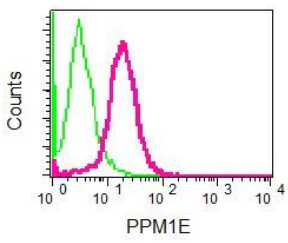
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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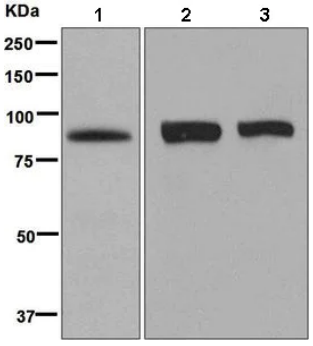
2 product images



Flow Cytometry (Intracellular) - Anti-PPM1E antibody [EPR8722] (ab137023)

PPM1E Flow Cytometry (Intracellular) staining using rabbit Anti-PPM1E antibody

Intracellular flow cytometric analysis of permeabilized SH-SY5Y cells labelling PPM1E with ab137023 at 1/100 dilution (red). Rabbit IgG negative control is green.



Western blot - Anti-PPM1E antibody [EPR8722] (ab137023)

All lanes:
Western blot - Anti-PPM1E antibody [EPR8722] (ab137023) at 1/1000 dilution

Lane 1:
SH-SY5Y lysate at 10 µg

Lane 2:
Human fetal brain lysate at 10 µg

Lane 3:
Human cerebellum lysate at 10 µg

Secondary

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

Predicted band size: 85 kDa

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