abcam

ab250937

Anti-PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) antibody [EPR1044(2)] - 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	EPR1044(2)

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	For antigen retrieval, heat up to 98 degree C, below boiling, and then let cool for 10-20 minutes.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information PKN3 pT718

Function	Contributes to invasiveness in malignant prostate cancer.

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

ab250937 is the carrier-free version of ab187660.

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	Protein Kinase C-related kinases (PRK1 PRK2 and PRK3) are serine/threonine kinases involved in signal transduction. PRK1 also referred to as PKN1 has a molecular mass of approximately 98 kDa. These kinases are generally expressed in tissues like the brain heart and skeletal muscle. PRK2 also known as PKN2 and PRK3 sometimes referred to as PKN3 share similar structural features having conserved regions like the catalytic and regulatory domains. All three kinases play roles in cytoskeletal dynamics and cellular signaling.
Biological function summary	PRK1 PRK2 and PRK3 act as downstream effectors of Rho GTPases which also suggests they can be involved in a complex. These kinases regulate actin cytoskeleton organization affecting cell shape and motility. PRK1 participates in processes like cell cycle progression and differentiation while PRK2 influences membrane trafficking and protein translation. PRK3 although less studied is similar in structure suggesting potential overlapping roles in cellular functions.
Pathways	PRK1 PRK2 and PRK3 integrate into the RhoA signaling pathway playing a part in actin remodeling. In particular PRK2 links closely to the mTOR pathway associated with cell growth and protein synthesis regulation. Through these pathways these kinases interact with other proteins such as Rho GTPases and mTORC1 coordinating a variety of critical cellular tasks and signaling events.
Associated diseases and disorders	Aberrant regulation of PRK1 PRK2 and PRK3 can connect to cancer and cardiovascular diseases. Overexpression or mutations of these kinases associate with various cancers promoting uncontrolled growth and metastasis. PRK2 particularly shows a relation to cardiac hypertrophy due to its role in heart muscle regulation. These kinases interact with key proteins like Akt and RhoA which further links them to oncogenic signaling and heart disease pathways.

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

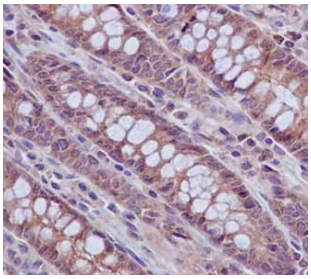
We do not recommend this combination. It is not covered by our product promise.

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.

4 product images

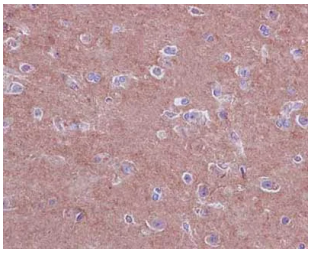


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) antibody [EPR1044(2)] - BSA and Azide free (ab250937)

PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) antibody

This data was developed using ab187660, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling PRK3+PRK2+PRK1 (phospho T718 + T816 + T774) with ab187660 at 1/100 dilution, followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

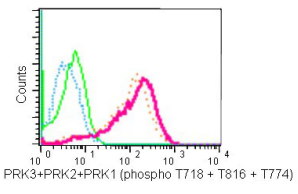


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) antibody [EPR1044(2)] - BSA and Azide free (ab250937)

PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) antibody

This data was developed using ab187660, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human astrocytoma tissue labeling PRK3+PRK2+PRK1 (phospho T718 + T816 + T774) with ab187660 at 1/100 dilution, followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

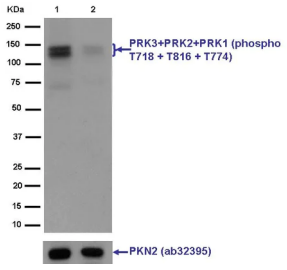


Flow Cytometry (Intracellular) - Anti-PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) antibody [EPR1044(2)] - BSA and Azide free (ab250937)

PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) Flow Cytometry (Intracellular) staining using rabbit Anti-PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) antibody

This data was developed using ab187660, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized HeLa cells, untreated (green) or Okadaic acid + Calyculin A-treated (red) using ab187660 at 1/280 dilution, and Okadaic acid + Calyculin A-treated HeLa cells using ab187660 preincubated with phospho-PRK3+PRK2+PRK1 (phospho T718 +

T816 + T774) peptide (blue) or non-phospho-PRK3+PRK2+PRK1 (phospho T718 + T816 + T774) peptide (orange). Cells were fixed with 2% paraformaldehyde. Secondary antibody was a Goat anti IgG (FITC) at 1/150 dilution.



Western blot - Anti-PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) antibody [EPR1044(2)] - BSA and Azide free (ab250937)

This data was developed using ab187660, the same antibody clone in a different buffer formulation.
Based on the sequence analysis, ab187660 recognizes three proteins with the predicted MWs of 99KDa, 112KDa and 104KDa, respectively.

All lanes:
Western blot - Anti-PRK3+PRK2+PRK1 (phospho T718 + T774 + T816) antibody [EPR1044(2)] (ab187660) at 1/10000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate treated with Okadaic acid + Calyculin A at 10 µg

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate, untreated at 10 µg

Secondary

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

Predicted band size: 1 kDa, 112 kDa, 99 kDa

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