

Product datasheet

Anti-Brk/PTK6 antibody [EPR21051-96] ab233392

Recombinant RabMAb

6 Images

Overview

Product name	Anti-Brk/PTK6 antibody [EPR21051-96]
Description	Rabbit monoclonal [EPR21051-96] to Brk/PTK6
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, IP, Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment within Human Brk/PTK6 aa 1-200. The exact sequence is proprietary. Database link: Q13882
Positive control	WB: T-47D, MCF7, HT-29 and PC-3 whole cell lysates; Human breast cancer and skin lysates. IHC-P: Human breast cancer and colon tissues. Flow Cytometry: T-47D cells. IP: T-47D whole cell lysate.
General notes	This product was previously labelled as Brk

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 production

For more information [see here](#).

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise[™] guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21051-96
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab233392** 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
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 48 kDa (predicted molecular weight: 52 kDa).
IP		1/30.
Flow Cyt		1/600.

Target

Function	Phosphorylates KHDRBS1, KHDRBS2, KHDRBS3 and STAP2/BKS. May function as an intracellular signal transducer in epithelial tissues. Overexpression in mammary cells leads to mitogenically sensitization to EGF, and results in a partially transformed phenotype. Its presence in the nucleus appears to be linked to suppression of tumor progression.
Tissue specificity	Epithelia-specific. Very high level in colon and high levels in small intestine and prostate, and low

levels in some fetal tissues. Expressed at low level in some breast tumors, but not in normal breast. Also found in melanocytes. Not expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.

Sequence similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. BRK/PTK6/SIK subfamily. Contains 1 protein kinase domain. Contains 1 SH2 domain. Contains 1 SH3 domain.

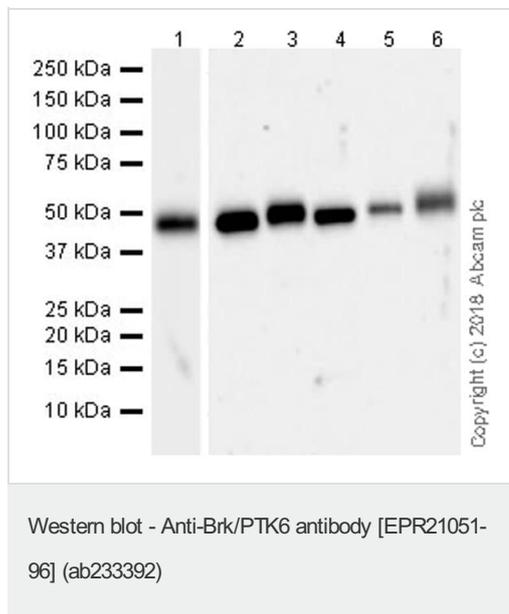
Post-translational modifications

Autophosphorylated. The phosphorylation of Tyr-447 may lead to the autoinhibition of the enzyme.

Cellular localization

Cytoplasm. Nucleus. Colocalizes with KHDRBS1, KHDRBS2 or KHDRBS3, within the nucleus. In secretory epithelial cells from prostate adenocarcinoma, nuclear localization is higher in low-grade and lower in high-grade regions of the tumors.

Images



All lanes :

Lane 1 : T-47D (human ductal breast epithelial tumor cell line) whole cell lysate

Lane 2 : MCF7 (human breast adenocarcinoma cell line) whole cell lysate

Lane 3 : HT-29 (human colorectal adenocarcinoma cell line) whole cell lysate

Lane 4 : PC-3 (human prostate adenocarcinoma cell line) whole cell lysate

Lane 5 : Human skin lysate

Lane 6 : Human breast cancer lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Developed using the ECL technique.

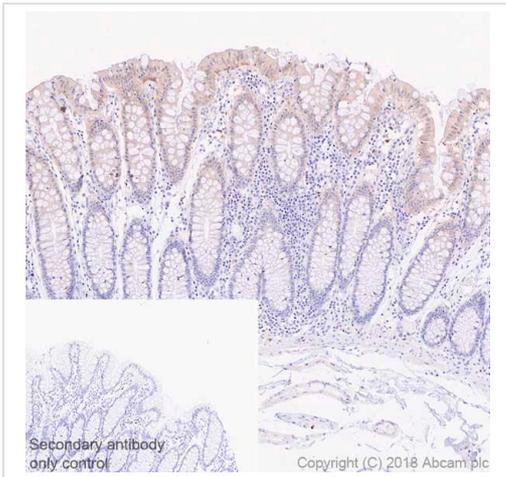
Predicted band size: 52 kDa

Observed band size: 48 kDa

[why is the actual band size different from the predicted?](#)

Exposure time : Lane 1: 15 seconds; Lane 2-6: 3 minutes.

Blocking/Dilution buffer: 5% NFDm/TBST.

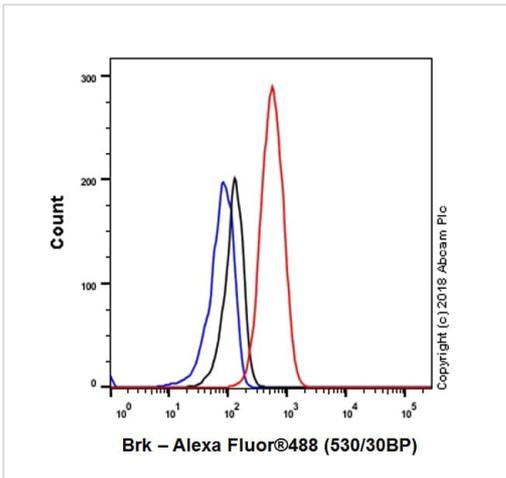


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Brk/PTK6 antibody [EPR21051-96] (ab233392)

Immunohistochemical analysis of paraffin-embedded human colon tissue labeling Brk/PTK6 with ab233392 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic and nuclear staining in surface epithelium of human colon (PMID: 10430081) is observed. Counter stained with hematoxylin.

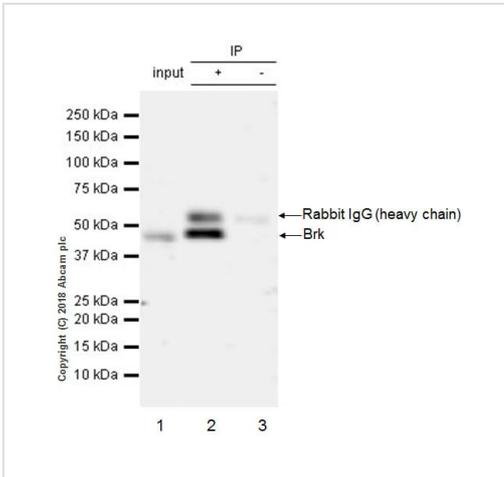
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).



Flow Cytometry - Anti-Brk/PTK6 antibody [EPR21051-96] (ab233392)

Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized T-47D (human ductal breast epithelial tumor cell line) cell line labeling Brk/PTK6 with ab233392 at 1/600 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control ([ab172730](#)) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) ([ab150077](#)) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Brk/PTK6 antibody [EPR21051-96] (ab233392)

Brk/PTK6 was immunoprecipitated from 0.35 mg of T-47D (human ductal breast epithelial tumor cell line) whole cell lysate with ab233392 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab233392 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5000 dilution.

Lane 1: T-47D whole cell lysate 10 µg (Input).

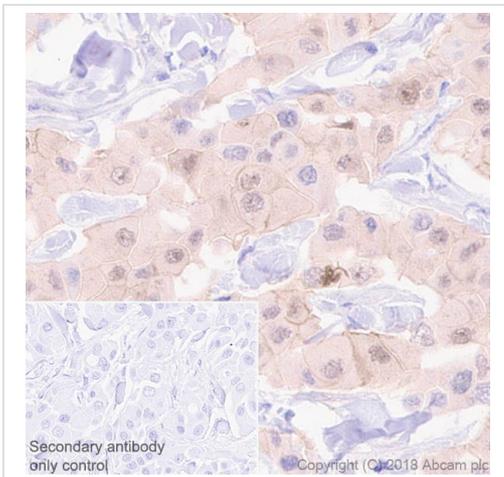
Lane 2: ab233392 IP in T-47D whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab233392 in T-47D whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFD/MTBST.

Exposure time: 3 minutes.

IgG heavy chain: PMID: 18781181



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Brk/PTK6 antibody [EPR21051-96] (ab233392)

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling Brk/PTK6 with ab233392 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic and nuclear staining in and membranous staining on human breast cancer cells is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).

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-Brk/PTK6 antibody [EPR21051-96] (ab233392)

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

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