

Product datasheet

Anti-GRK2 antibody [EPR22465] ab227825

KO VALIDATED Recombinant RabMAb

6 Images

Overview

Product name	Anti-GRK2 antibody [EPR22465]
Description	Rabbit monoclonal [EPR22465] to GRK2
Host species	Rabbit
Tested applications	Suitable for: WB, IP Unsuitable for: ICC/IF or IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HEK-293 and HepG2 whole cell lysates; Wild-type HAP1 whole cell lysate; Human skeletal muscle lysate. IP: HeLa and HEK-293T whole cell lysates.
General notes	<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>

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	EPR22465

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab227825 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		1/1000. Predicted molecular weight: 80 kDa.
IP		1/30.

Application notes

Is unsuitable for ICC/IF or IHC-P.

Target

Function

Specifically phosphorylates the agonist-occupied form of the beta-adrenergic and closely related receptors, probably inducing a desensitization of them. Key regulator of LPAR1 signaling. Competes with RALA for binding to LPAR1 thus affecting the signaling properties of the receptor. Desensitizes LPAR1 and LPAR2 in a phosphorylation-independent manner.

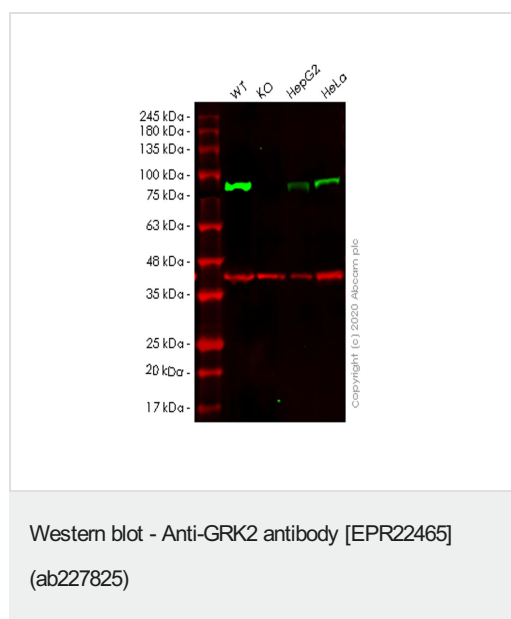
Tissue specificity

Expressed in peripheral blood leukocytes.

Sequence similarities

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. GPRK subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 PH domain. Contains 1 protein kinase domain. Contains 1 RGS domain.

Images



All lanes : Anti-GRK2 antibody [EPR22465] (ab227825) at 1/1000 dilution

Lane 1 : Wild-type HEK293T cell lysate

Lane 2 : ADRBK1 knockout HEK293T cell lysate

Lane 3 : HepG2 cell lysate

Lane 4 : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

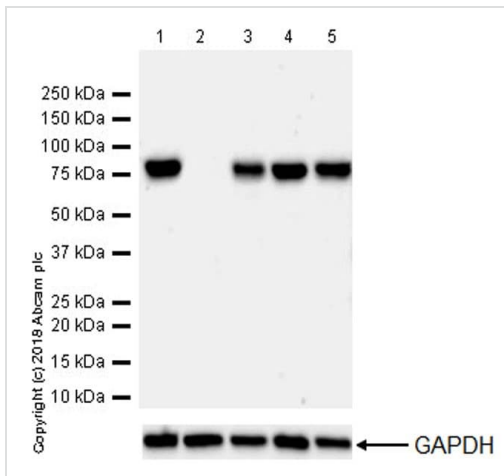
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 80 kDa

Observed band size: 80 kDa

Lanes 1-4: Merged signal (red and green). Green - ab227825 observed at 80 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab227825 Anti-GRK2 antibody [EPR22465] was shown to specifically react with GRK2 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line **ab266352** (knockout cell lysate **ab257345**) was used. Wild-type and GRK2 knockout samples were subjected to SDS-PAGE. ab227825 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. 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 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-GRK2 antibody [EPR22465]
(ab227825)

All lanes : Anti-GRK2 antibody [EPR22465] (ab227825) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : GRK2 knockout HAP1 whole cell lysate

Lane 3 : HEK-293 (human epithelial cell line from embryonic kidney) whole cell lysate

Lane 4 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 5 : HepG2 (human liver hepatocellular carcinoma cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

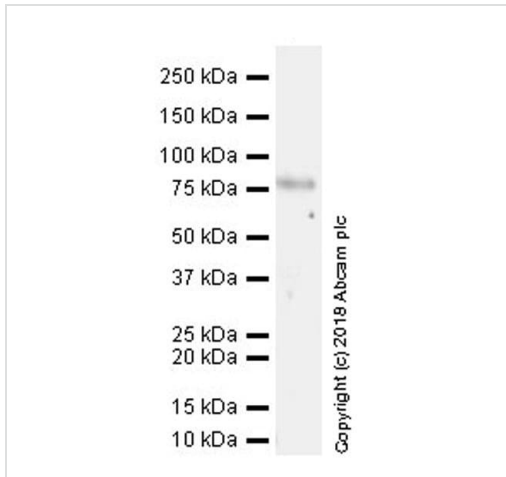
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 80 kDa

Blocking/Dilution buffer: NFDN/TBST.

ab227825 was shown to specifically react with GRK2 in wild-type

HAP1 cells as signal was lost in GRK2 knockout cells. Wild-type and GRK2 knockout samples were subjected to SDS-PAGE. ab227825 and **ab181602** (Rabbit anti-GAPDH loading control) were incubated 1 hour at room temperature at 1/1000 dilution and 1/200,000 dilution respectively. Blots were developed with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) secondary antibody at 1/100,000 dilution for 1 hour at room temperature before imaging. The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument using the ECL technique.



Western blot - Anti-GRK2 antibody [EPR22465] (ab227825)

Anti-GRK2 antibody [EPR22465] (ab227825) at 1/1000 dilution + Human skeletal muscle lysate at 20 µg

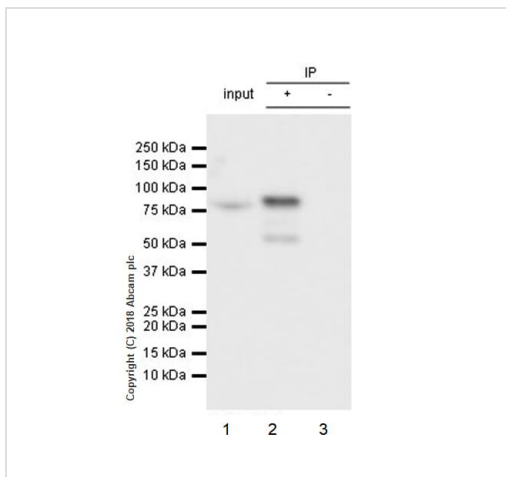
Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/1000 dilution

Predicted band size: 80 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.



Immunoprecipitation - Anti-GRK2 antibody [EPR22465] (ab227825)

GRK2 was immunoprecipitated from 0.35 mg HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab227825 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab227825 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Lane 1: HeLa whole cell lysate 10 µg (Input).

Lane 2: ab227825 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab227825 in HeLa whole cell lysate.

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: 3 seconds.

GRK2 was found readily degradable by proteolytic process (PMID:9857063; PMID:12738776). The bands smaller than 80-kDa detected in the immune-precipitate may represent degraded GRK2.



Immunoprecipitation - Anti-GRK2 antibody
[EPR22465] (ab227825)

GRK2 was immunoprecipitated from 0.35 mg HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate with ab227825 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab227825 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution.

Lane 1: HEK-293T whole cell lysate 10 µg (Input).

Lane 2: ab227825 IP in HEK-293T whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab227825 in HEK-293T whole cell lysate.

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: 3 seconds.

GRK2 was found readily degradable by proteolytic process (PMID:9857063; PMID:12738776). The bands smaller than 80-kDa detected in the immune-precipitate may represent degraded GRK2.

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-GRK2 antibody [EPR22465] (ab227825)

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

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