abcam

Product datasheet

Anti-PKR (phospho T446) antibody [E120] ab32036

Recombinant RabMAb

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Overview

Product name	Anti-PKR (phospho T446) antibody [E120]
Description	Rabbit monoclonal [E120] to PKR (phospho T446)
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP **Unsuitable for:** Flow Cyt,ICC/IF or IHC-P
Species reactivity	**Reacts with:** Human, Pig
Immunogen	Synthetic peptide within Human PKR. The exact sequence is proprietary. Database link: **P19525** (Peptide available as **ab181660**)
Positive control	WB: HeLa treated with Calyculin A and TNF-alpha whole cell lysate; Calynculin A and IFN treated HeLa cell lysate. IHC-P: Human colon tissue. IP: HeLa
General notes	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**. Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	E120
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab32036 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	★★★★☆ **(6)**	1/1000. Detects a band of approximately 68 kDa (predicted molecular weight: 62 kDa).
IP		1/10.

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

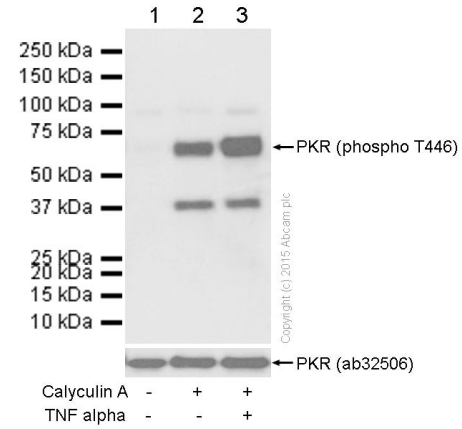
Target

Function Following activation by double-stranded RNA in the presence of ATP, the kinase becomes autophosphorylated and can catalyze the phosphorylation of the translation initiation factor EIF2S1, which leads to an inhibition of the initiation of protein synthesis. Double-stranded RNA is generated during the course of a viral infection.

Sequence similarities Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. GCN2 subfamily.
Contains 2 DRBM (double-stranded RNA-binding) domains.
Contains 1 protein kinase domain.

Post-translational modifications Autophosphorylated on several Ser and Thr residues. Autophosphorylation of Thr-451 is dependent on Thr-446 and is stimulated by dsRNA binding and dimerization. Autophosphorylation apparently leads to the activation of the kinase.

Images



Western blot - Anti-PKR (phospho T446) antibody [E120] (ab32036)

All lanes : Anti-PKR (phospho T446) antibody [E120] (ab32036) at 1/2000 dilution

Lane 1 : HeLa (human cervix adenocarcinoma) whole cell lysate
Lane 2 : HeLa (human cervix adenocarcinoma) treated with 100 ng/mL Calyculin A whole cell lysate
Lane 3 : HeLa (human cervix adenocarcinoma) treated with 100 ng/mL Calyculin A followed by 20 ng/mL TNF alpha whole cell lysate

Lysates/proteins at 15 µg per lane.

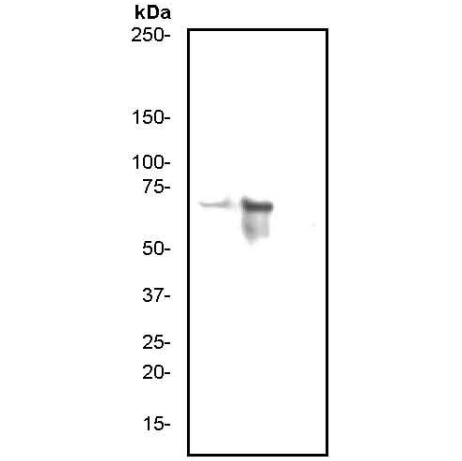
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 62 kDa
Observed band size: 68 kDa

Exposure time: 10 seconds

Blocking/Diluting buffer: 5% NFDM/TBST

Positive control: Rabbit monoclonal [Y117] to PKR (**ab32506**).

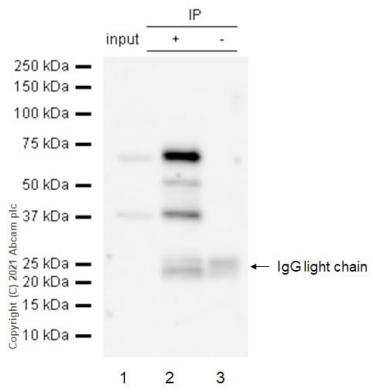


Western blot - Anti-PKR (phospho T446) antibody [E120] (ab32036)

All lanes : Anti-PKR (phospho T446) antibody [E120] (ab32036) at 1/1000 dilution (unpurified)

Lane 1 : Hela (human epithelial cell line from cervix adenocarcinoma) cell lysate
Lane 2 : Hela cell lysate + IFN + CalyculinA
Lane 3 : Hela cell lysate + Pptase

Predicted band size: 62 kDa
Observed band size: 68 kDa



Immunoprecipitation - Anti-PKR (phospho T446) antibody [E120] (ab32036)

PKR was immunoprecipitated from 0.35 mg HeLa (Human cervix adenocarcinoma epithelial cell) treated with Calyculin A(100nM 30min) whole cell lysate 10 µg with ab32036 at 1/50 dilution (2µg). VeriBlot for IP Detection Reagent (HRP)(**ab131366**) was used at 1/5000 dilution.

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) treated with Calyculin A(100nM 30min) whole cell lysate 10 µg

Lane 2: ab32036 IP in HeLa treated with Calyculin A(100nM 30min) whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab32036 in HeLa treated with Calyculin A(100nM 30min) whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Lower bands could be cleavage form. (PMID:28702377)

Anti-PKR (phospho T446) antibody [E120] (ab32036)

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