abcam

Product datasheet

Anti-PKR (phospho T451) antibody [EPR2152Y] ab81303

Recombinant RabMAb

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Overview

Product name	Anti-PKR (phospho T451) antibody [EPR2152Y]
Description	Rabbit monoclonal [EPR2152Y] to PKR (phospho T451)
Host species	Rabbit
Tested applications	**Suitable for:** Dot blot, WB **Unsuitable for:** IHC-P
Species reactivity	**Reacts with:** Human, Pig
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa cell lysates.
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**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR2152Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab81303 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
Dot blot		1/1000.
WB	★☆☆☆☆ **(1)**	Use at an assay dependent concentration. Detects a band of approximately 68 kDa (predicted molecular weight: 62 kDa).

Application notes Is unsuitable for IHC-P.

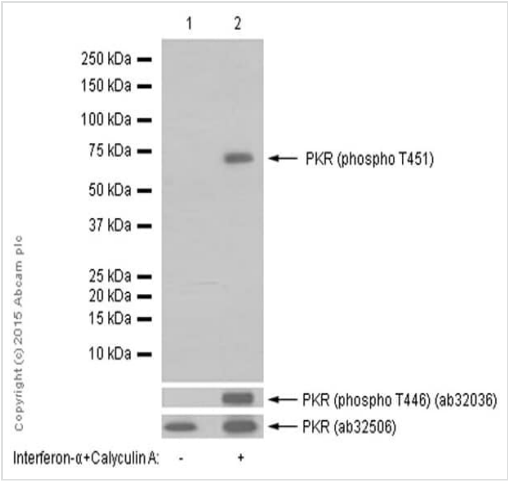
Target

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 T451) antibody [EPR2152Y] (ab81303)

All lanes : Anti-PKR (phospho T451) antibody [EPR2152Y] (ab81303) at 1/2000 dilution

Lane 1 : Untreated HeLa (human cervix adenocarcinoma) whole cell lysate
Lane 2 : HeLa (human cervix adenocarcinoma) treated with Interferon-a and Calyculin A whole cell lysate

Lysates/proteins at 10 µg per lane.

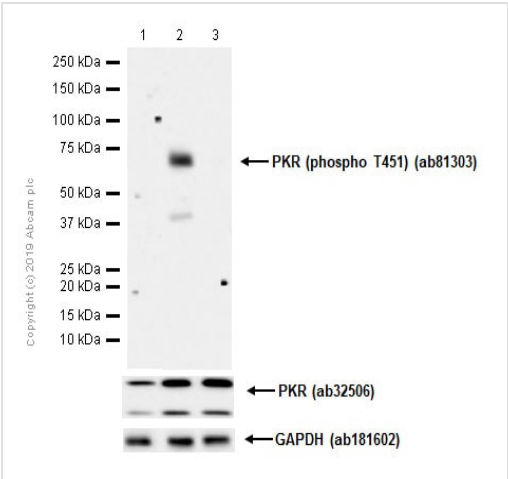
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 62 kDa

Purified format.

Blocking buffer: 5% NFDM/TBST

Diluting buffer: 5% NFDM/TBST



Western blot - Anti-PKR (phospho T451) antibody [EPR2152Y] (ab81303)

All lanes : Anti-PKR (phospho T451) antibody [EPR2152Y] (ab81303) at 0.048 µg/ml

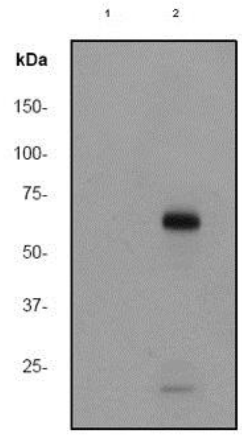
Lane 1 : HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : HeLa treated with 1000U/ml IFN a1 for 18 hours and then treated with 100nM Calyculin A for 15 minutes whole cell lysate
Lane 3 : HeLa treated with 1000U/ml IFN a1 for 18 hours and then treated with 100nM Calyculin A for 15 minutes whole cell lysate. Then the membrane was incubated with alkaline phosphatase.

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 0.01 µg/ml

Predicted band size: 62 kDa

Blocking/Diluting Buffer and concentration: 5% NFDM /TBST



Western blot - Anti-PKR (phospho T451) antibody [EPR2152Y] (ab81303)

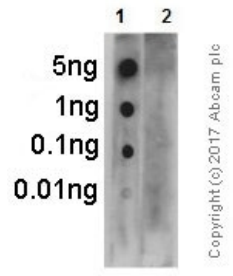
All lanes : Anti-PKR (phospho T451) antibody [EPR2152Y] (ab81303) at 1/2000 dilution (undiluted)

Lane 1 : HeLa cell lysate un-treated
Lane 2 : HeLa cell lysate treated with IFN-alpha

Lysates/proteins at 10 µg per lane.

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

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



Dot Blot - Anti-PKR (phospho T451) antibody [EPR2152Y] (ab81303)

Dot blot analysis of PKR (pT451) phospho peptide (Lane 1), PKR non-phospho peptide (Lane 2), labeling PKR (phospho T451) with ab81303 at a dilution of 1/1000. **ab97051** (Peroxidase conjugated goat anti-rabbit IgG (H+L)) was used as the secondary antibody at a dilution of 1/100000.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 3 minutes

Anti-PKR (phospho T451) antibody [EPR2152Y] (ab81303)

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