

## Product datasheet

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

Recombinant RabMAb

★☆☆☆☆ 1 Abreviews 9 References 3 Images

### Overview

<b>Product name</b>	Anti-PKR (phospho T451) antibody [EPR2152Y]
<b>Description</b>	Rabbit monoclonal [EPR2152Y] to PKR (phospho T451)
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab81303 only detects PKR phosphorylated on Threonine 451.
<b>Tested applications</b>	<b>Suitable for:</b> Dot blot, WB <b>Unsuitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	A synthetic phospho-peptide corresponding to residues surrounding Thr451 of Human PKR.
<b>Positive control</b>	WB: HeLa cell lysates.
<b>General notes</b>	Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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

**We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.**

This product is a recombinant rabbit monoclonal antibody.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR2152Y
<b>Isotype</b>	IgG

## Applications

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	★☆☆☆☆	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.

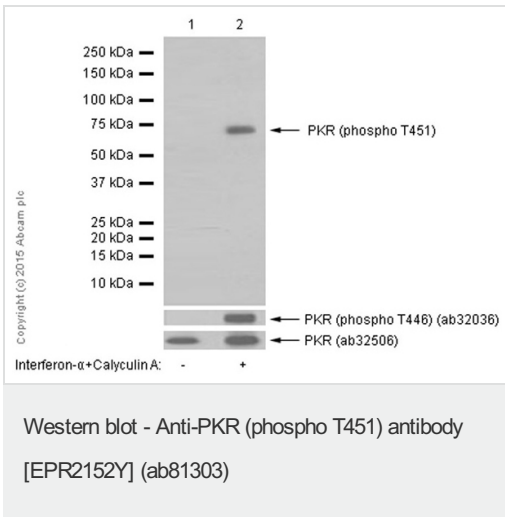
## Target

**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



**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- $\alpha$  and Calyculin A whole cell lysate

Lysates/proteins at 10  $\mu$ g per lane.

### Secondary

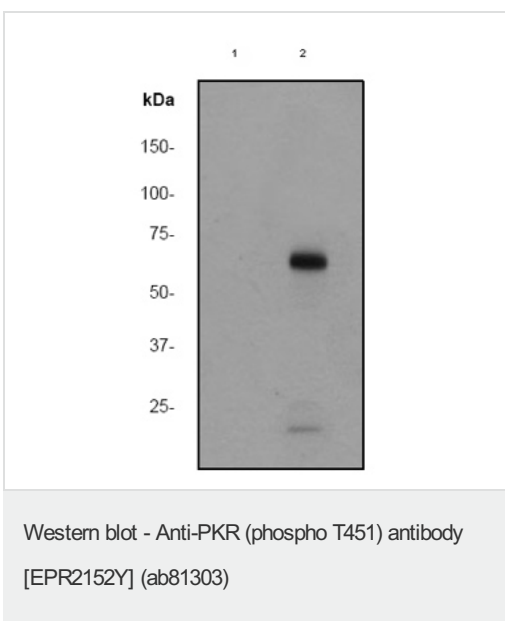
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 62 kDa

Purified format.

Blocking buffer: 5% NFDM/TBST

Diluting buffer: 5% NFDM/TBST



**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- $\alpha$

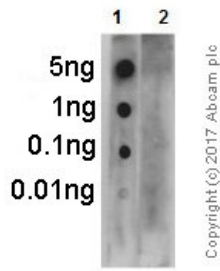
Lysates/proteins at 10  $\mu$ g per lane.

### 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

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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