


## Product datasheet

# Anti-PERK antibody ab79483

★★★★☆ [5 Abreviews](#) [22 References](#) [3 Images](#)

### Overview

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<b>Product name</b>	Anti-PERK antibody
<b>Description</b>	Rabbit polyclonal to PERK
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Synthetic non-phosphopeptide derived from human PERK around the phosphorylation site of threonine 981 (RHT <sup>P</sup> GQ)
<b>Positive control</b>	IHC: human colon carcinoma tissue WB: extracts from MCF-7 cells
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride  Without Mg <sup>2+</sup> and Ca <sup>2+</sup>
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab79483 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	★★★★☆ (4)	1/500 - 1/1000. Predicted molecular weight: 125 kDa.
IHC-P	★★★★☆ (1)	1/50 - 1/100.

## Target

### Function

Phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2 (EIF2), leading to its inactivation and thus to a rapid reduction of translational initiation and repression of global protein synthesis. Serves as a critical effector of unfolded protein response (UPR)-induced G1 growth arrest due to the loss of cyclin D1.

### Tissue specificity

Ubiquitous. A high level expression is seen in secretory tissues.

### Involvement in disease

Defects in EIF2AK3 are the cause of Wolcott-Rallison syndrome (WRS) [MIM:226980]; also known as multiple epiphyseal dysplasia with early-onset diabetes mellitus. WRS is a rare autosomal recessive disorder, characterized by permanent neonatal or early infancy insulin-dependent diabetes and, at a later age, epiphyseal dysplasia, osteoporosis, growth retardation and other multisystem manifestations, such as hepatic and renal dysfunctions, mental retardation and cardiovascular abnormalities.

### Sequence similarities

Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. GCN2 subfamily. Contains 1 protein kinase domain.

### Domain

The luminal domain senses perturbations in protein folding in the ER, probably through reversible interaction with HSPA5/BIP.

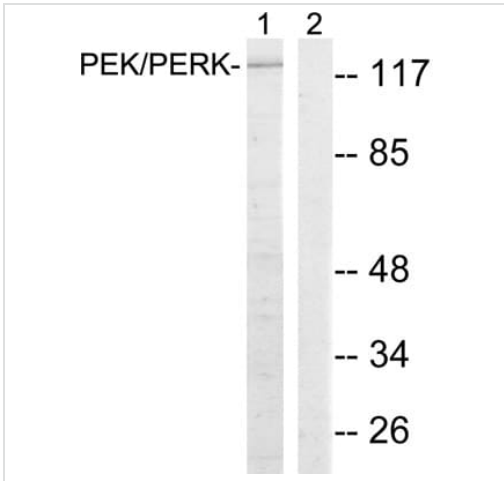
### Post-translational modifications

Autophosphorylated.  
N-glycosylated.

### Cellular localization

Endoplasmic reticulum membrane.

## Images



Western blot - Anti-PERK antibody (ab79483)

**All lanes :** Anti-PERK antibody (ab79483) at 1/500 dilution

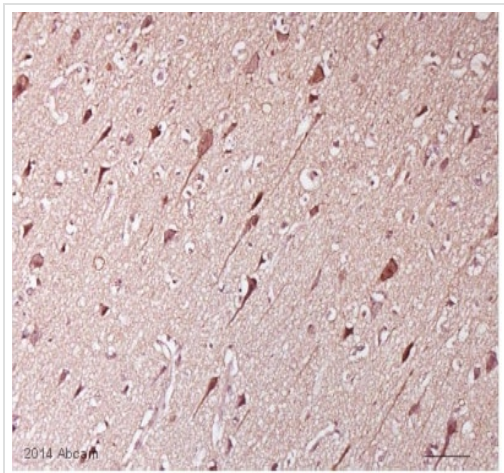
**Lane 1 :** extracts from MCF-7 cells

**Lane 2 :** extracts from MCF-7 cells with immunising peptide at 10 µg

Lysates/proteins at 30 µg per lane.

**Predicted band size:** 125 kDa

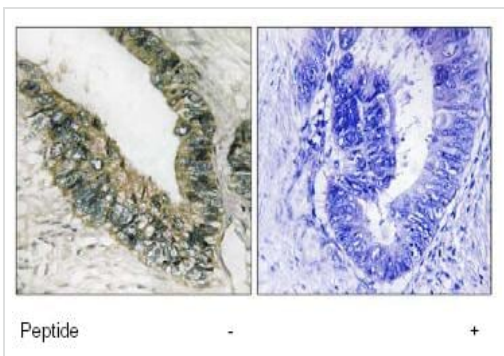
**Observed band size:** 125 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PERK antibody (ab79483)

This image is courtesy of an anonymous abreview.

IHC-P image of PERK staining on human cortical sections using ab79483 (1:500). The tissue was fixed in formaldehyde and the sections were then subjected to heat mediated antigen retrieval using citric acid and permeabilized using Triton-X. The sections were then blocked using 2% BSA for 1 hour at 20°C. ab79483 was diluted 1:500 and incubated with the sections for 18 hours at 20°C. The secondary antibody used was HRP conjugated Goat polyclonal to Rabbit IgG (1:500)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PERK antibody (ab79483)

Immunohistochemistry analysis of paraffin-embedded human colon carcinoma tissue, stained with ab79483 at 1/50-1/100 dilution, in the absence and presence of the immunising peptide

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