

## Product datasheet

### Anti-PERK antibody ab65142

★★★★★ [2 Abreviews](#) [61 References](#) [2 Images](#)

#### Overview

<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> ICC/IF, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	A synthesized peptide derived from an internal region of human PERK
<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

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride</p>
<b>Purity</b>	Without Mg <sup>2+</sup> and Ca <sup>2+</sup>
<b>Clonality</b>	Immunogen affinity purified
<b>Isotype</b>	Polyclonal
	IgG

#### Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab65142 in the following tested applications.

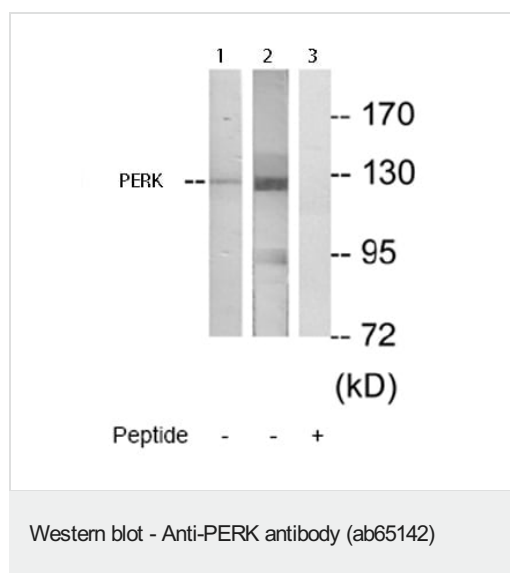
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★☆☆☆☆ (1)	1/500 - 1/1000.
WB	★★★★★ (1)	1/500 - 1/1000. Detects a band of approximately 125 kDa (predicted molecular weight: 125 kDa).

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Ubiquitous. A high level expression is seen in secretory tissues.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. GCN2 subfamily. Contains 1 protein kinase domain.
<b>Domain</b>	The luminal domain senses perturbations in protein folding in the ER, probably through reversible interaction with HSPA5/BIP.
<b>Post-translational modifications</b>	Autophosphorylated. N-glycosylated.
<b>Cellular localization</b>	Endoplasmic reticulum membrane.

## Images



**All lanes :** Anti-PERK antibody (ab65142) at 1/500 dilution

**Lane 1 :** Extracts from Hela cells

**Lane 2 :** Extracts from HepG2 cells

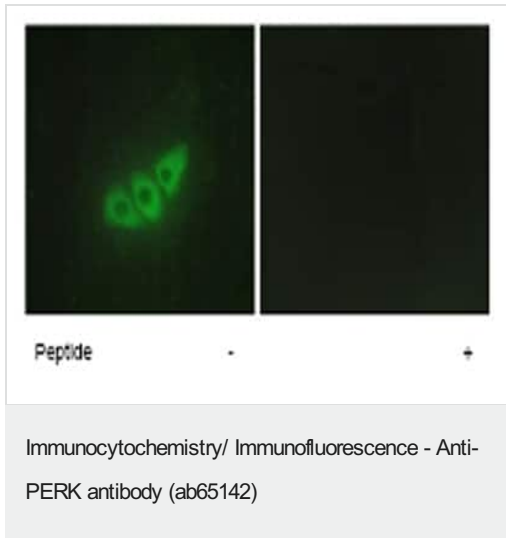
**Lane 3 :** Extracts from HepG2 cells, plus immunising peptide

**Predicted band size:** 125 kDa

**Observed band size:** 125 kDa

The amount of positive control loading for the WB is 5-30 ug of total protein.

The amount of the peptide for the WB is 5-10 ug.



Immunofluorescence analysis of HepG2 cells using ab65142 at a 1/500-1/1000 dilution. Left image untreated. Right image treated with immunising peptide.

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

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