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Datasheet for ABIN392617  
**anti-PERK antibody (N-Term)**

2 Images

1 Publication

### Overview

Quantity:	400 µL
Target:	PERK (EIF2AK3)
Binding Specificity:	AA 148-175, N-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PERK antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

### Product Details

Immunogen:	This PERK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 148-175 amino acids from the N-terminal region of human PERK.
Clone:	RB15305
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

### Target Details

Target:	PERK (EIF2AK3)
Alternative Name:	PERK ( <a href="#">EIF2AK3 Products</a> )

## Target Details

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**Background:** PERK, a member of the GCN2 subfamily of Ser/Thr protein kinases, 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. It likely serves as a critical effector of unfolded protein response (UPR)-induced G1 growth arrest due to the loss of cyclin D1. Perturbation in protein folding in the endoplasmic reticulum (ER) promotes reversible dissociation from HSPA5/BIP and oligomerization, resulting in transautophosphorylation and kinase activity induction. Expression of this Type I membrane protein is ubiquitous, with highest levels seen in secretory tissues. Defects in EIF2AK3 are the cause of Wolcott-Rallison syndrome (WRS), 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.

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**Molecular Weight:** 125216

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**Gene ID:** 9451

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**NCBI Accession:** [NP\\_004827](#)

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**UniProt:** [Q9NZJ5](#)

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**Pathways:** [Hormone Transport](#), [ER-Nucleus Signaling](#), [Positive Regulation of Endopeptidase Activity](#), [Hepatitis C](#)

## Application Details

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**Application Notes:** WB: 1:1000. IHC-P: 1:50~100

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**Restrictions:** For Research Use only

## Handling

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**Format:** Liquid

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**Buffer:** Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.

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**Preservative:** Sodium azide

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**Precaution of Use:** This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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**Storage:** 4 °C, -20 °C

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## Handling

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Storage Comment: Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small aliquots to prevent freeze-thaw cycles.

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Expiry Date: 6 months

## Publications

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Product cited in: Abdelalim, Masuda, Tooyama: "Expression of natriuretic peptide-activated guanylate cyclases by cholinergic and dopaminergic amacrine cells of the rat retina." in: **Peptides**, Vol. 29, Issue 4, pp. 622-8, (2008) ([PubMed](#)).

Dams, Van Acker, Gustin, Vereycken, Bunkens, Holemans, Smeulders, Clayton, Ohagen, Hertogs: "A time-resolved fluorescence assay to identify small-molecule inhibitors of HIV-1 fusion." in: **Journal of biomolecular screening**, Vol. 12, Issue 6, pp. 865-74, (2007) ([PubMed](#)).

Tomescot, Leschik, Bellamy, Dubois, Messas, Bruneval, Desnos, Hagège, Amit, Itskovitz, Menasché, Pucéat: "Differentiation in vivo of cardiac committed human embryonic stem cells in postmyocardial infarcted rats." in: **Stem cells (Dayton, Ohio)**, Vol. 25, Issue 9, pp. 2200-5, (2007) ([PubMed](#)).

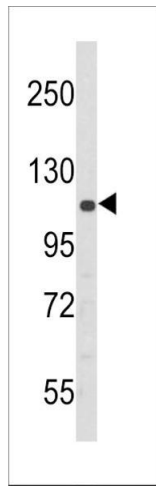
## Images

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### Immunohistochemistry (Paraffin-embedded Sections)

**Image 1.** Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with PERK antibody (N-term ) (ABIN392617 and ABIN2842134) , which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry, clinical relevance has not been evaluated.



### Western Blotting

**Image 2.** Western blot analysis of PERK Antibody (N-term ) (ABIN392617 and ABIN2842134) in 293 cell line lysates (35  $\mu$ g/lane). PERK (arrow) was detected using the purified Pab.