

Datasheet for ABIN3030887
anti-PERK antibody (AA 148-175)



[Go to Product page](#)

3 Images

Overview

| | |
|----------------------|--|
| Quantity: | 0.4 mL |
| Target: | PERK (EIF2AK3) |
| Binding Specificity: | AA 148-175 |
| Reactivity: | Human |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This PERK antibody is un-conjugated |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC) |

Product Details

| | |
|---------------|---|
| Immunogen: | A portion of amino acids 148-175 from the human protein was used as the immunogen for this PERK antibody. |
| Isotype: | Ig Fraction |
| Purification: | Purified |

Target Details

| | |
|-------------------|---|
| Target: | PERK (EIF2AK3) |
| Alternative Name: | PERK (EIF2AK3 Products) |
| 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 |

Target Details

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.

UniProt: [Q9NZJ5](#)

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

Application Details

Application Notes: Titration of the PERK antibody may be required due to differences in protocols and secondary/substrate sensitivity. Western blot: 1:1000, IHC (Paraffin): 1:50-1:100

Restrictions: For Research Use only

Handling

Format: Liquid

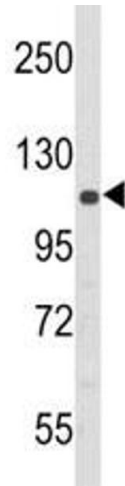
Buffer: In 1X PBS pH 7.4 with 0.09 % sodium azide

Preservative: Sodium azide

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

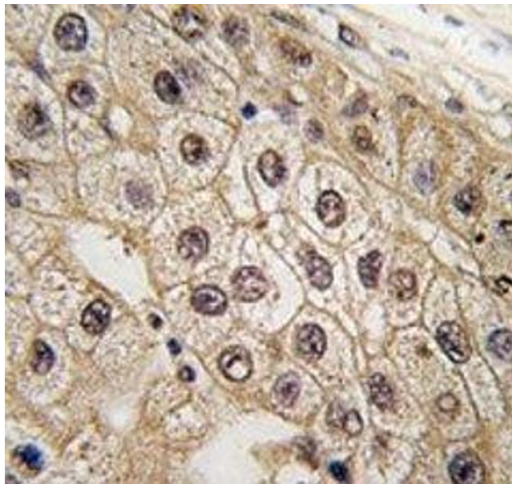
Storage: -20 °C

Storage Comment: Aliquot the PERK antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.



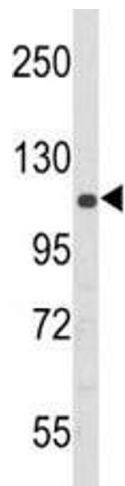
Western Blotting

Image 1. Western blot analysis of PERK antibody and 293 lysate



Immunohistochemistry

Image 2. IHC analysis of FFPE human hepatocarcinoma tissue stained with PERK antibody



Western Blotting

Image 3. Western blot analysis of PERK antibody and 293 lysate