

**Anti-PERK (pT982) Antibody**  
Rabbit polyclonal antibody to PERK (pT982)  
Catalog # AP61129

**Specification**

---

**Anti-PERK (pT982) Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O9NZJ5</a>
Other Accession	<a href="#">O9Z2B5</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>125216</b>

**Anti-PERK (pT982) Antibody - Additional Information**

**Gene ID** 9451

**Other Names**

PEK; PERK; Eukaryotic translation initiation factor 2-alpha kinase 3; PRKR-like endoplasmic reticulum kinase; Pancreatic eIF2-alpha kinase; HsPEK

**Target/Specificity**

Recognizes endogenous levels of PERK (pT982) protein.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-PERK (pT982) Antibody - Protein Information**

**Name** EIF2AK3

**Synonyms** PEK, PERK

**Function**

Metabolic-stress sensing protein kinase that phosphorylates the alpha subunit of eukaryotic translation initiation factor 2 (EIF2S1/eIF-2-alpha) in response to various stress conditions. Key activator of the integrated stress response (ISR) required for adaptation to various stress, such as unfolded protein response (UPR) and low amino acid availability (By similarity). EIF2S1/eIF-2-alpha phosphorylation in response to stress converts EIF2S1/eIF-2-alpha in a global protein synthesis inhibitor, leading to a global attenuation of cap-dependent translation, while concomitantly

initiating the preferential translation of ISR-specific mRNAs, such as the transcriptional activators ATF4 and QRICH1, and hence allowing ATF4- and QRICH1-mediated reprogramming (PubMed:<a href="http://www.uniprot.org/citations/33384352" target="\_blank">33384352</a>). Serves as a critical effector of unfolded protein response (UPR)-induced G1 growth arrest due to the loss of cyclin-D1 (CCND1). Involved in control of mitochondrial morphology and function (By similarity).

#### Cellular Location

Endoplasmic reticulum membrane; Single-pass type I membrane protein

#### Tissue Location

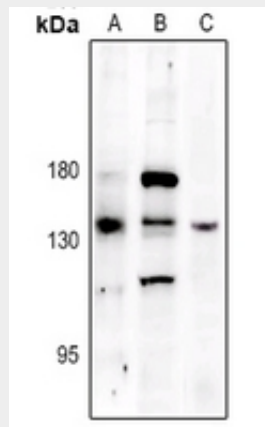
Ubiquitous. A high level expression is seen in secretory tissues

### Anti-PERK (pT982) Antibody - Protocols

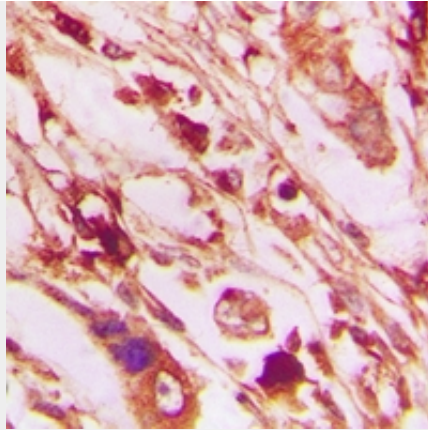
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-PERK (pT982) Antibody - Images



Western blot analysis of PERK (pT982) expression in A375 (A), MCF7 (B), mouse testis (C) whole cell lysates.



Immunohistochemical analysis of PERK (pT982) staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

#### **Anti-PERK (pT982) Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human PERK. The exact sequence is proprietary.