

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

Specification

Anti-PERK (pT982) Antibody - Product Information

Application	WB
Primary Accession	O9NZJ5
Other Accession	O9Z2B5
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	125216

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:33384352). 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

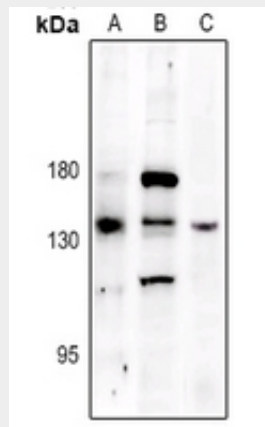
Ubiquitous. A high level expression is seen in secretory tissues

Anti-PERK (pT982) Antibody - Protocols

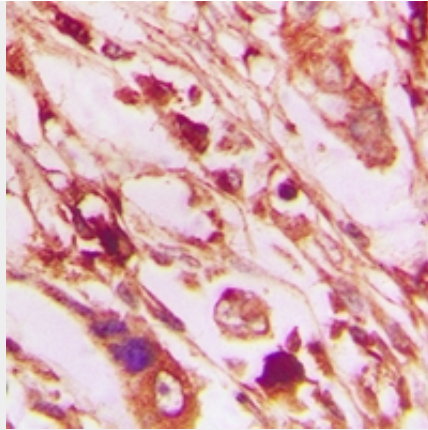
Provided below are standard protocols that you may find useful for product applications.

- [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.