# PERK (Phospho Thr980) (PT0868R) PT™ Rabbit mAb

CatalogNo: YM8637 Recombinant

## Key Features

Host Species
- Rabbit

Reactivity
- Mouse,Rat

Applications
- WB,IF,ELISA

MW
- 125kD (Calculated)

125kD (Observed)

Isotype
- IgG,Kappa

## Recommended Dilution Ratios

**WB 1:2000-1:10000**
**IF 1:200-1:1000**
**ELISA 1:5000-1:20000**

## Storage

| | |
|---|---|
| **Storage*** | -15°C to -25°C/1 year(Do not lower than -25°C) |
| **Formulation** | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA |

## Basic Information

| | |
|---|---|
| **Clonality** | Monoclonal |
| **Clone Number** | PT0868R |

## Immunogen Information

| | |
|---|---|
| **Specificity** | PERK (Phospho Thr980) Antibody detects endogenous levels of PERK protein only when phosphorylated at T980.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):YArHT |

## Target Information

**Gene name** EIF2AK3

**Protein Name** Eukaryotic translation initiation factor 2-alpha kinase 3

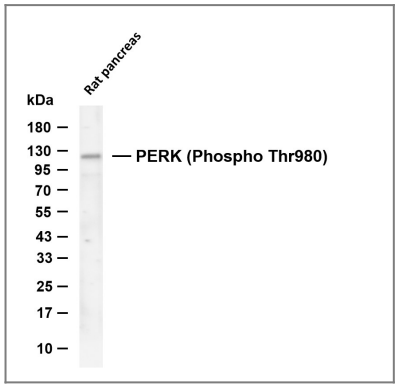
| Organism | Gene ID | UniProt ID |
|---|---|---|
| Human | 9451; | Q9NZJ5; |
| Mouse | | Q9Z2B5; |
| Rat | 29702; | Q9Z1Z1; |

**Cellular Localization** Endoplasmic reticulum membrane; Single-pass type I membrane protein.

**Tissue specificity** Ubiquitous. A high level expression is seen in secretory tissues.

**Function** Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,Disease: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.,Domain:The lumenal domain senses perturbations in protein folding in the ER, probably through reversible interaction with HSPA5/BIP.,enzyme regulation:Perturbation in protein folding in the endoplasmic reticulum (ER) promotes reversible dissociation from HSPA5/BIP and oligomerization, resulting in transautophosphorylation and kinase activity induction.,Function: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.,induction:By ER stress.,PTM:Autophosphorylated.,PTM:N-glycosylated.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. GCN2 subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Forms dimers with HSPA5/BIP in resting cells. Oligomerizes in ER-stressed cells. Interacts with DNAJC3.,tissue specificity:Ubiquitous. A high level expression is seen in secretory tissues.,

## Validation Data




Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PERK (Phospho Thr980) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Rat pancreas Predicted band size: 125kDa Observed band size: 125kDa

## Contact information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|---|---|
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