# PERK Monoclonal Antibody

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| **Catalog No** | YP-Ab-14182 |
| **Isotype** | IgG |
| **Reactivity** | Human |
| **Applications** | WB;ELISA |
| **Gene Name** | EIF2AK3 |
| **Protein Name** | Eukaryotic translation initiation factor 2-alpha kinase 3 |
| **Immunogen** | Purified recombinant fragment of human PERK expressed in E. Coli. |
| **Specificity** | PERK Monoclonal Antibody detects endogenous levels of PERK protein. |
| **Formulation** | Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol. |
| **Source** | Monoclonal, Mouse |
| **Purification** | Affinity purification |
| **Dilution** | Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | EIF2AK3; PEK; PERK; Eukaryotic translation initiation factor 2-alpha kinase 3; PRKR-like endoplasmic reticulum kinase; Pancreatic eIF2-alpha kinase; HsPEK |
| **Observed Band** | |
| **Cell Pathway** | 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 act |
| **Background** | The protein encoded by this gene phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2, leading to its inactivation, and thus to a rapid reduction of translational initiation and repression of global protein synthesis. This |

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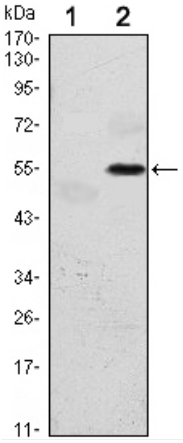
| | protein is thought to modulate mitochondrial function. It is a type I membrane protein located in the endoplasmic reticulum (ER), where it is induced by ER stress caused by malfolded proteins. Mutations in this gene are associated with Wolcott-Rallison syndrome. [provided by RefSeq, Sep 2015], |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |

## Products Images




Western Blot analysis using PERK Monoclonal Antibody against HEK293 (1) and EIF2AK3-hIgGFc transfected HEK293 (2) cell lysate.