



# PERK Monoclonal Antibody

<b>Catalog No</b>	YP-Ab-14182
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human
<b>Applications</b>	WB;ELISA
<b>Gene Name</b>	EIF2AK3
<b>Protein Name</b>	Eukaryotic translation initiation factor 2-alpha kinase 3
<b>Immunogen</b>	Purified recombinant fragment of human PERK expressed in E. Coli.
<b>Specificity</b>	PERK Monoclonal Antibody detects endogenous levels of PERK protein.
<b>Formulation</b>	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
<b>Source</b>	Monoclonal, Mouse
<b>Purification</b>	Affinity purification
<b>Dilution</b>	Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	EIF2AK3; PEK; PERK; Eukaryotic translation initiation factor 2-alpha kinase 3; PRKR-like endoplasmic reticulum kinase; Pancreatic eIF2-alpha kinase; HsPEK
<b>molecular weight</b>	125kD
<b>Cell Pathway</b>	Endoplasmic reticulum membrane; Single-pass type I membrane protein.
<b>Tissue Specificity</b>	Ubiquitous. A high level expression is seen in secretory tissues.
<b>Function</b>	<p>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 luminal 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</p>
<b>Background</b>	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



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 malformed proteins. Mutations in this gene are associated with Wolcott-Rallison syndrome. [provided by RefSeq, Sep 2015],

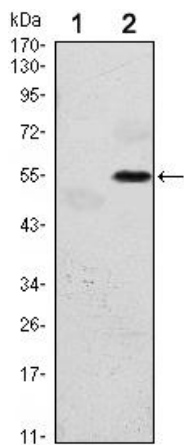
**matters needing attention**

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-hlgGfc transfected HEK293 (2) cell lysate.