

## PERK (PT0310R) PT® Rabbit mAb

<b>Catalog No :</b>	YM8183
<b>Reactivity :</b>	Human; Mouse; Rat;
<b>Applications :</b>	WB;IF;IP;ELISA
<b>Gene Name :</b>	>>Mitophagy - animal;>>Autophagy - animal;>>Protein processing in endoplasmic reticulum;>>Apoptosis;>>Non-alcoholic fatty liver disease;>>Alzheimer disease;>>Parkinson disease;>>Amyotrophic lateral sclerosis;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Hepatitis C;>>Measles;>>Herpes simplex virus 1 infection;>>Lipid and atherosclerosis
<b>Protein Name :</b>	EIF2AK3
<b>Sequence :</b>	Eukaryotic translation initiation factor 2-alpha kinase 3
<b>Human Gene Id :</b>	9451
<b>Human Swiss Prot No :</b>	Q9NZJ5
<b>Mouse Swiss Prot No :</b>	Q9Z2B5
<b>Rat Gene Id :</b>	29702
<b>Rat Swiss Prot No :</b>	Q9Z1Z1
<b>Specificity :</b>	endogenous
<b>Formulation :</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source :</b>	Monoclonal, rabbit, IgG, Kappa
<b>Dilution :</b>	WB 1:1000-1:5000,IF 1:200-1:1000,ELISA 1:5000-1:20000,IP 1:50-1:200,
<b>Purification :</b>	Protein A
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)

**Molecularweight :** 125kD

**Observed Band :** 140kD

**Cell Pathway :** Alzheimer's disease;

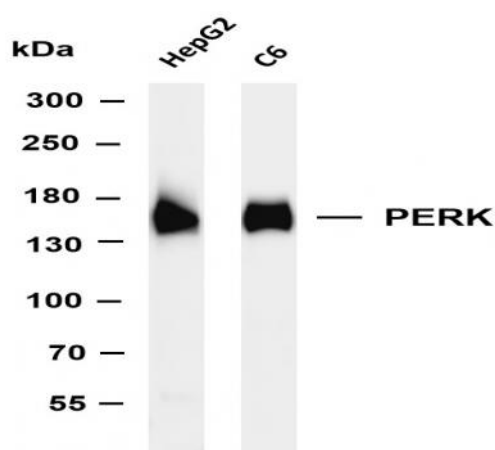
**Background :** The protein encoded by this gene phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2, leading to its inactivation, and thus to a rapid reduction of translational initiation and repression of global protein synthesis. This protein is thought to modulate mitochondrial 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],

**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 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

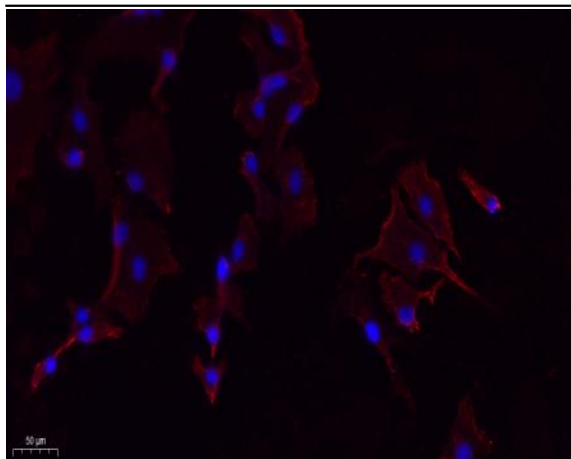
**Subcellular Location :** Endoplasmic reticulum membrane

**Expression :** Ubiquitous. A high level expression is seen in secretory tissues.

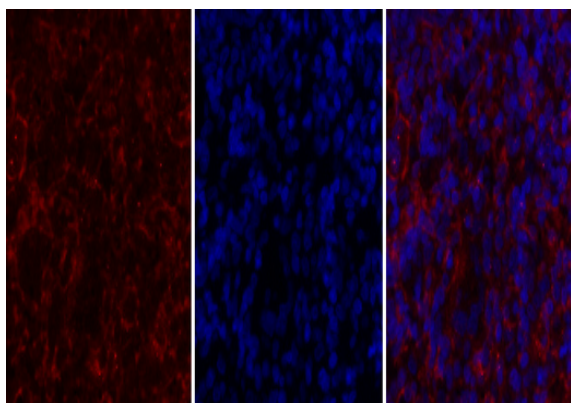
## Products Images



Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-PERK (PT0310R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HepG2 Lane 2: C6 Predicted band size: 125kDa Observed band size: 140kDa



Immunofluorescence analysis of A549. 1,primary Antibody(red) was diluted at 1:200(4 °C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000(room temperature, 50min).3, Picture B: DAPI(blue) 10min.



A

B

C

Immunofluorescence analysis of rat-spleen tissue. 1,PERK Antibody(red) was diluted at 1:200(4 °C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B