PERK (PT0310R) PT® Rabbit mAb

Catalog No :	AR1144
Reactivity :	Human; Mouse; Rat;
Applications :	WB;IF;IP;ELISA
Gene Name :	>>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
Protein Name :	EIF2AK3
Sequence :	Eukaryotic translation initiation factor 2-alpha kinase 3
Human Gene Id :	9451
Human Swiss Prot No :	Q9NZJ5
Mouse Swiss Prot No :	Q9Z2B5
Rat Gene Id :	29702
Rat Swiss Prot No :	Q9Z1Z1
Specificity :	endogenous
Formulation :	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source :	Monoclonal, rabbit, IgG, Kappa
Dilution :	WB 1:1000-1:5000,IF 1:200-1:1000,ELISA 1:5000-1:20000,IP 1:50-1:200,
Purification :	Protein A
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight : 125kD

Observed Band : 140kD

Cell Pathway : Alzheimer's disease;

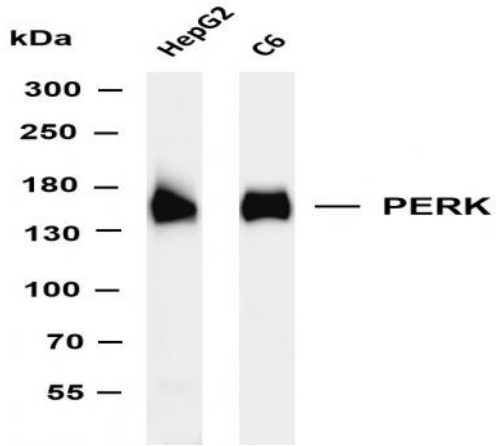
Background : The protein encoded by this gene phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2, leading to its inactivation, and thus to a rapid reduction of translational initiation and repression of global protein synthesis. This protein is thought to modulate mitochondrial function. It is a type I membrane protein located in the endoplasmic reticulum (ER), where it is induced by ER stress caused by malfolded 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 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

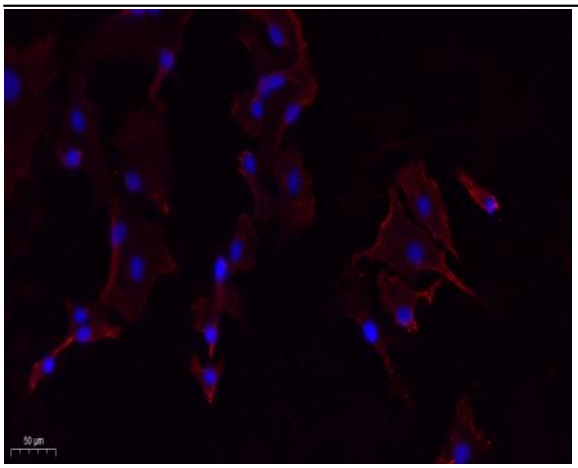
Subcellular Location : Endoplasmic reticulum membrane

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

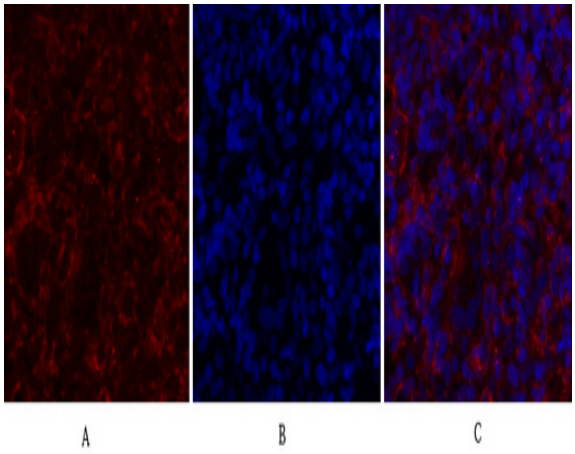
Products Images



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.



Immunofluorescence analysis of rat-spleen tissue. 1,PERK Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled 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