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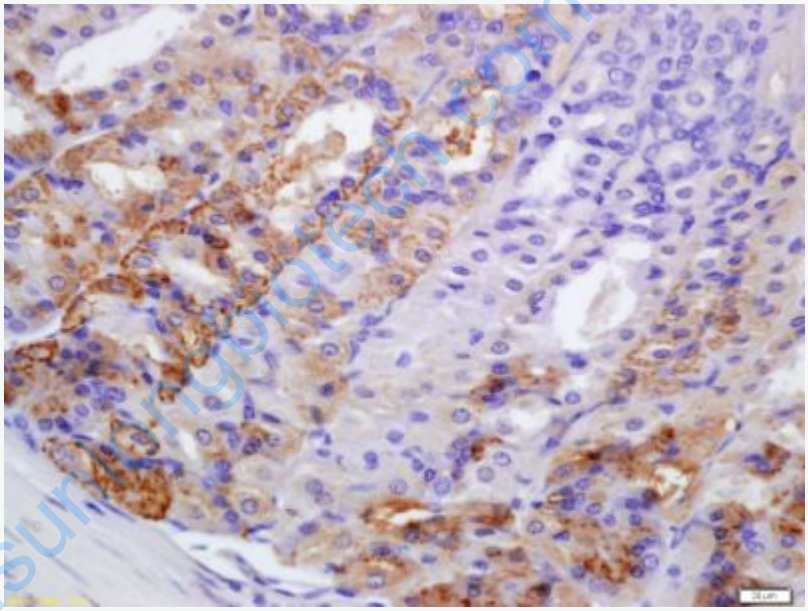
Rabbit Anti-PERK antibody

SL2469R

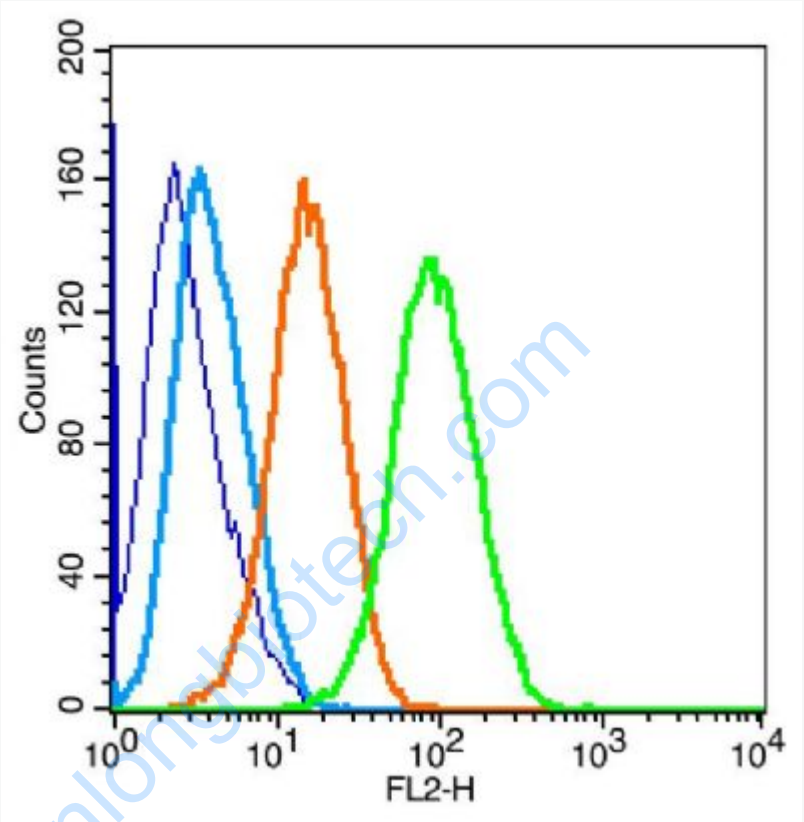
Product Name:	PERK
Chinese Name:	蛋白激酶样内质网激酶抗体
Alias:	DKFZp781H1925; E2AK3_HUMAN; EC 2.7.11.1; EIF2AK3; Eukaryotic translation initiation factor 2 alpha kinase 3; Eukaryotic translation initiation factor 2-alpha kinase 3; Heme regulated EIF2 alpha kinase; HRI; HsPEK; Pancreatic eIF2 alpha kinase; Pancreatic eIF2-alpha kinase; PEK; PRKR like endoplasmic reticulum kinase; PRKR-like endoplasmic reticulum kinase; WRS.
文献引用 PubMed：	**Specific References(4)**|SL2469R has been referenced in 4 publications. **[IF=2.33]**He, Yihuai, et al. "Sustained endoplasmic reticulum stress inhibits hepatocyte proliferation via downregulation of c-Met expression." Molecular and Cellular Biochemistry (2014): 1-8.**WB;Human**. PubMed:24390087 **[IF=0.00]**Wang, Yu, et al. "Tanshinone II A Relieves Adriamycin-induced Myocardial Injury in Rat Model." International Journal of Chemistry 8.1 (2016): 40.**WB;Rat**. PubMed:not posted yet **[IF=4.65]**Yu, H., et al. "Gypenoside Protects against Myocardial Ischemia-Reperfusion Injury by Inhibiting Cardiomyocytes Apoptosis via Inhibition of CHOP Pathway and Activation of PI3K/Akt Pathway In Vivo and In Vitro."Cellular Physiology and Biochemistry 39.1 (2016): 123-136.**WB;Rat**. PubMed:27322831 **[IF=3.29]**Yan, Jiting, et al. "Catalpol prevents alteration of cholesterol homeostasis in non-alcoholic fatty liver disease via attenuating endoplasmic reticulum stress and NOX4 over-expression." RSC Advances 7.2 (2017): 1161-1176.**WB;Human**.

	PubMed:0
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg/TestIF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	122kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PERK:1001-1116/1116
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The protein encoded by this gene 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. 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, Jan 2010] **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 (CCND1). **Subunit:** Forms dimers with HSPA5/BIP in resting cells. Oligomerizes in ER-stressed cells. Interacts with DNAJC3. **Subcellular Location:** Endoplasmic reticulum membrane; Single-pass type I membrane protein. **Tissue Specificity:** Ubiquitous. A high level expression is seen in secretory tissues. **Post-translational modifications:**

	Oligomerization of the N-terminal ER luminal domain by ER stress promotes PERK trans-autophosphorylation of the C-terminal cytoplasmic kinase domain at multiple residues including Thr-982 on the kinase activation loop. Autophosphorylated. Phosphorylated at Tyr-619 following endoplasmic reticulum stress, leading to activate its tyrosine-protein kinase activity. Dephosphorylated by PTPN1/TP1B, leading to inactivate its enzyme activity. N-glycosylated. ADP-ribosylated by PARP16 upon ER stress, which increases kinase activity. **DISEASE:** Wolcott-Rallison syndrome (WRS) [MIM:226980]: 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. Note=The disease is caused by mutations affecting the gene represented in this entry. **Similarity:** Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. GCN2 subfamily. Contains 1 protein kinase domain. **SWISS:** Q9NZJ5 **Gene ID:** 9451 **Database links:** Entrez Gene: 9451Human Entrez Gene: 13666Mouse Entrez Gene: 29702Rat Omim: 604032Human SwissProt: Q9NZJ5Human SwissProt: Q9Z2B5Mouse SwissProt: Q9Z1Z1Rat Unigene: 591589Human

	Unigene: 247167Mouse Unigene: 24897Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Tissue/cell: mouse stomach tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-PERK Polyclonal Antibody, Unconjugated(SL2469R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and

DAB(C-0010) staining



Blank control: U-87MG(blue).

Primary Antibody:Rabbit Anti-PERK antibody(SL2469R), Dilution: 1µg in 100 µL 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice. Primary antibody (SL2469R) were

	incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.