



## Rabbit Anti-Phospho-PERK (Thr980) antibody

SL3330R

<b>Product Name:</b>	Phospho-PERK (Thr980)
<b>Chinese Name:</b>	磷酸化蛋白激酶样内质网激酶抗体
<b>Alias:</b>	p-PERK(Thr980); PERK(Phospho Thr980); PERK(Phospho T980); HRI; HsPEK; Pancreatic eIF2-alpha kinase; PEK; PRKR like endoplasmic reticulum kinase; WRS; DKFZp781H1925; EC 2.7.11.1; EIF2AK3; Eukaryotic translation initiation factor 2 alpha kinase 3; Heme regulated EIF2 alpha kinase.
<b>文献引用</b> 	<p><b>Specific References(8)</b> SL3330R has been referenced in 8 publications.</p> <p><b>[IF=5.27]</b>Kucuksayan, Ertan, et al. "Neutral Sphingomyelinase Inhibition Decreases ER Stress-Mediated Apoptosis and Inducible Nitric Oxide Synthase in Retinal Pigment Epithelial Cells." Free Radical Biology and Medicine (2014).<b>WB;Human</b>. <a href="#">PubMed:24742815</a></p> <p><b>[IF=2.33]</b>He, Yihuai, et al. "Sustained endoplasmic reticulum stress inhibits hepatocyte proliferation via downregulation of c-Met expression." Molecular and Cellular Biochemistry (2014): 1-8.<b>WB;Human</b>. <a href="#">PubMed:24390087</a></p> <p><b>[IF=3.63]</b>Aslan, Mutay, et al. "Inhibition of Neutral Sphingomyelinase Decreases Elevated Levels of Inducible Nitric Oxide Synthase and Apoptotic Cell Death in Ocular Hypertensive Rats." Toxicology and Applied Pharmacology (2014).<b>WB;Rat</b>. <a href="#">PubMed:25201535</a></p> <p><b>[IF=4.19]</b>Xu, Demei, et al. "Polychlorinated biphenyl quinone induces endoplasmic reticulum stress, unfolded protein response and calcium release." Chemical Research in Toxicology (2015).<b>WB;Human</b>. <a href="#">PubMed:25950987</a></p>

	<p><b>[IF=0.00]</b>Wang, Yu, et al. "Tanshinone II A Relieves Adriamycin-induced Myocardial Injury in Rat Model." International Journal of Chemistry 8.1 (2016): 40.<b>WB;Rat.</b>  <a href="#">PubMed:not posted yet</a></p> <p><b>[IF=4.65]</b>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.<b>WB;Rat.</b>  <a href="#">PubMed:27322831</a></p> <p><b>[IF=4.94]</b>Carmosino, Monica, et al. "The expression of Lamin A mutant R321X leads to endoplasmic reticulum stress with aberrant Ca<sup>2+</sup> handling." Journal of Cellular and Molecular Medicine (2016).<b>WB, IF(ICC);Human.</b>  <a href="#">PubMed:27421120</a></p> <p><b>[IF=0.00]</b>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.<b>WB;Human.</b>  <a href="#">PubMed:0</a></p>
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Pig,Cow,Rabbit,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/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.
<b>Molecular weight:</b>	119kDa
<b>Cellular localization:</b>	cytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthesised phosphopeptide derived from mouse PERK around the phosphorylation site of Thr980:H(p-T)GQ
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	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.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	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 malformed 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.

**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.

**Post-translational modifications:**

Autophosphorylated.

N-glycosylated.

**Similarity:**

Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. GCN2 subfamily.

Contains 1 protein kinase domain.

**SWISS:**

Q9Z2B5

**Gene ID:**

13666

**Database links:**

[Entrez Gene: 9451](#)Human

[Entrez Gene: 13666](#)Mouse

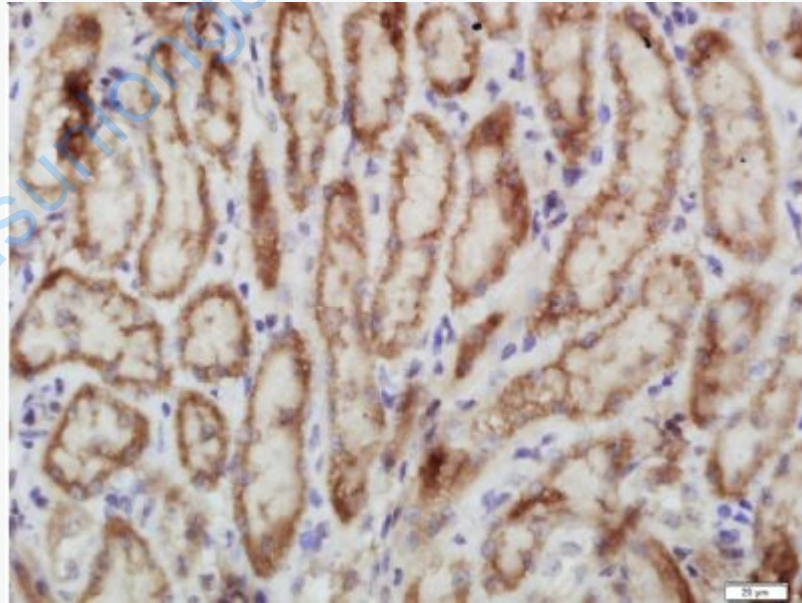
[Entrez Gene: 29702](#)Rat

[Omin: 604032](#)Human  
[SwissProt: Q9NZJ5](#)Human  
[SwissProt: Q9Z2B5](#)Mouse  
[SwissProt: Q9Z1Z1](#)Rat  
[Unigene: 591589](#)Human  
[Unigene: 247167](#)Mouse  
[Unigene: 24897](#)Rat

**Important Note:**

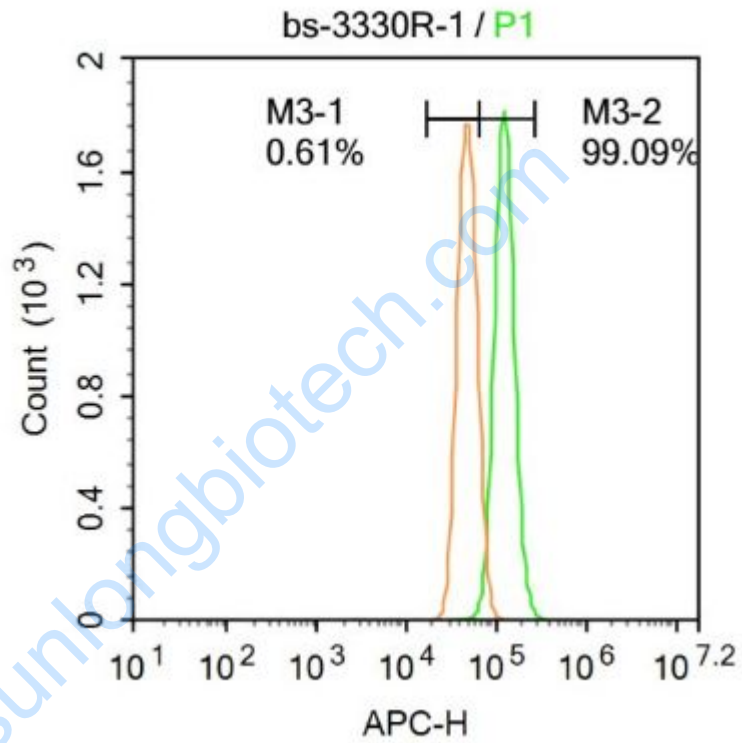
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Picture:**



Paraformaldehyde-fixed, paraffin embedded (rat kidney tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C

for 30min; Antibody incubation with (Phospho-PERK(Thr980)) Polyclonal Antibody, Unconjugated ( bs-3330R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Blank control (Black line): A431 (Black).

Primary Antibody (green line): Rabbit Anti-PERK(Thr980) antibody (SL3330R)

Dilution: 1 $\mu$ g /10<sup>6</sup> cells;

Isotype Control Antibody (orange line): Rabbit IgG .

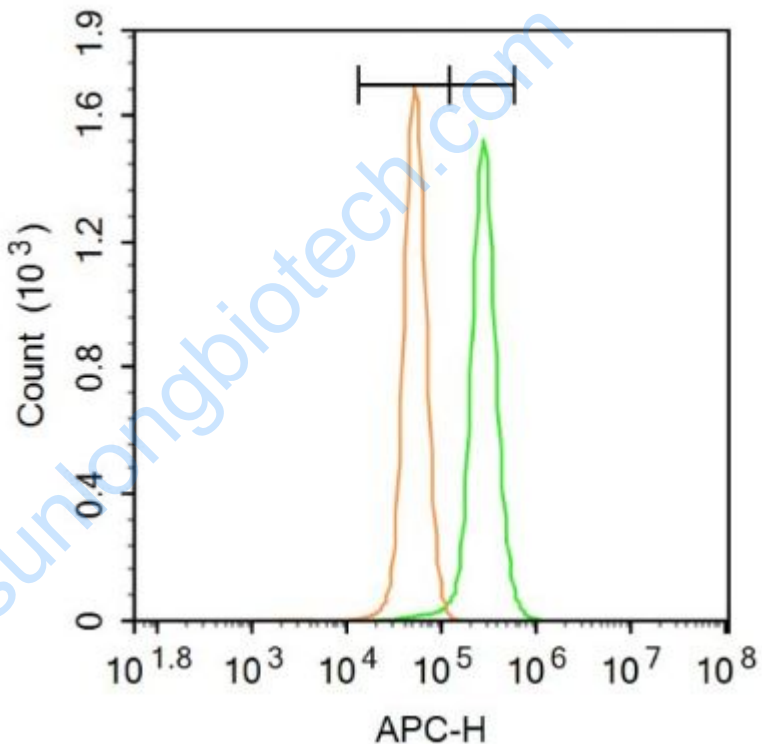
Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647

Dilution: 1 $\mu$ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then

permeabilized with 20% PBST for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at  $-20^{\circ}\text{C}$ . Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Blank control: A431.

Primary Antibody (green line): Rabbit Anti-PERK(Thr980) antibody (SL3330R)

Dilution:  $3\mu\text{g} / 10^6$  cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody: Goat anti-rabbit IgG-AF647

Dilution:  $3\mu\text{g} / \text{test}$ .

#### Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 20% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

[www.sunlongbiotech.com](http://www.sunlongbiotech.com)