

## Summary

<b>Production Name</b>	PERK Rabbit Polyclonal Antibody
<b>Description</b>	Primary antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC-F,IHC-P,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal Antibody
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
<b>Purification</b>	Affinity Purified

## Immunogen

<b>Gene Name</b>	EIF2AK3
<b>Alternative Names</b>	EIF2AK3; PEK; PERK; Eukaryotic translation initiation factor 2-alpha kinase 3; PRKR-like endoplasmic reticulum kinase; Pancreatic eIF2-alpha kinase; HsPEK
<b>Gene ID</b>	9451
<b>SwissProt ID</b>	Q9NZJ5

## Application

<b>Dilution Ratio</b>	WB: 1/500-1/1000 IHC: 1/50-1/100 IF: 1/50-1/200 ELISA: 1/10000
<b>Molecular Weight</b>	Calculated MW: 125 kDa; Observed MW: 125 kDa

## Background

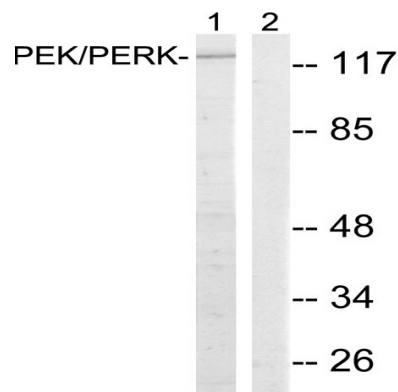
**Product Name: PERK Rabbit Polyclonal Antibody**  
**Catalog #: APRab00457**

Metabolic-stress sensing protein kinase that phosphorylates the alpha subunit of eukaryotic translation initiation factor 2 (eIF-2-alpha/EIF2S1) on 'Ser-52' during the unfolded protein response (UPR) and in response to low amino acid availability. Converts phosphorylated eIF-2-alpha/EIF2S1 either in a global protein synthesis inhibitor, leading to a reduced overall utilization of amino acids, or to a translation initiation activator of specific mRNAs, such as the transcriptional activator ATF4, and hence allowing ATF4-mediated reprogramming of amino acid biosynthetic gene expression to alleviate nutrient depletion. Serves as a critical effector of unfolded protein response (UPR)-induced G1 growth arrest due to the loss of cyclin-D1 (CCND1). Involved in control of mitochondrial morphology and function.

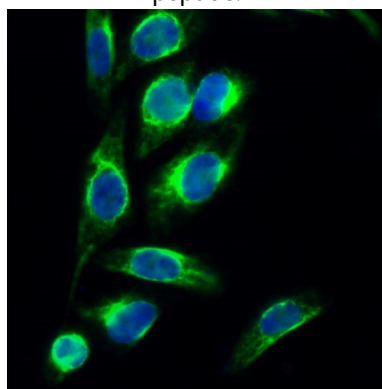
## Research Area

Epigenetics and Nuclear Signaling

## Image Data

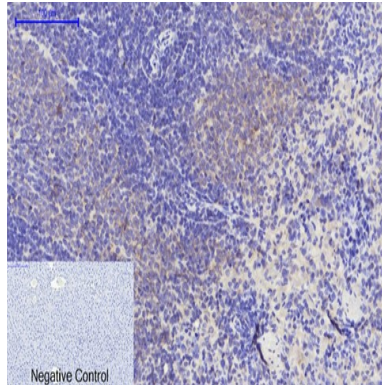


Western blot analysis of PERK in MCF-7 lysates using PERK antibody. The lane on the right is blocked with the synthesized peptide.



Immunofluorescence analysis of PERK in HeLa using PERK antibody(green)

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Immunohistochemistry analysis of paraffin-embedded mouse lung tissue using PERK antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.

**Note**

For research use only.