

Product Name: Phospho-PERK (Thr982) Rabbit Polyclonal Antibody
Catalog #: APRab03837

Summary

Production Name	Phospho-PERK (Thr982) Rabbit Polyclonal Antibody
Description	Primary antibody
Host	Rabbit
Application	WB,IHC-F,IHC-P,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

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

Immunogen

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

Application

Dilution Ratio	WB: 1/500-1/1000 IHC: 1/50-1/100 IF: 1/50-1/200 ELISA: 1/10000
Molecular Weight	Calculated MW: 125 kDa; Observed MW: 130 kDa

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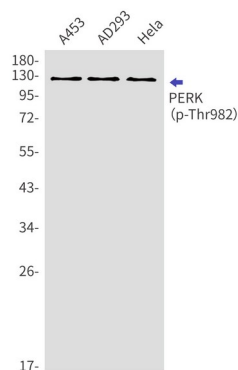
Background

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.

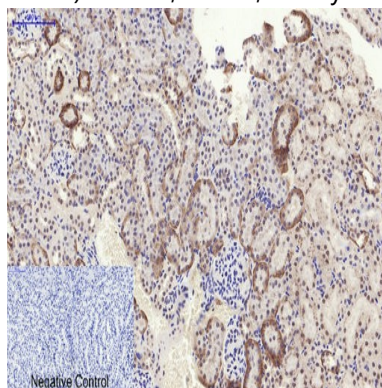
Research Area

Epigenetics and Nuclear Signaling

Image Data

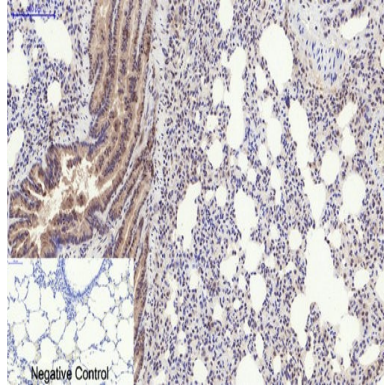


Western blot analysis of Phospho-PERK (Thr982) in A453, AD293, HeLa lysates using Phospho-PERK (Thr982) antibody.



Immunohistochemistry analysis of paraffin-embedded mouse kidney tissue using Phospho-PERK (Thr982) antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.

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Immunohistochemistry analysis of paraffin-embedded rat lung tissue using Phospho-PERK (Thr982) antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.

Note

For research use only.