

## PERK RABBIT PAB

**Cat.#:** N225379

**Product Name:** Anti-PERK Rabbit pAb

**Synonyms:** EIF2AK3; PEK; PERK; Eukaryotic translation initiation factor 2- $\alpha$  kinase 3; PRKR-like endoplasmic reticulum kinase; Pancreatic eIF2- $\alpha$  kinase; HsPEK

**UNIPROT ID:** Q9NZJ5

**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.

**Immunogen:** The antiserum was produced against synthesized peptide derived from human EIF2AK3. AA range:947-996

**Applications:** ICC/IF,WB,IHC-F,IHC-P,ELISA

**Recommended Dilutions:** WB: 1/500-1/1000 IHC: 1/50-1/100 IF: 1/50-1/200  
ELISA: 1/10000

**Host Species:** Rabbit

**Clonality:** Rabbit Polyclonal

**Clone ID:** -

**MW:** Calculated MW: 125 kDa; Observed MW: 125 kDa

**Isotype:** IgG

**Purification:** Affinity Purified

**Species Reactivity:** Human,Mouse,Rat

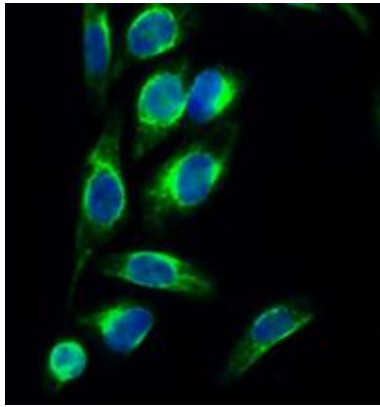
**Conjugation:** Unconjugated

**Modification:** Unmodified

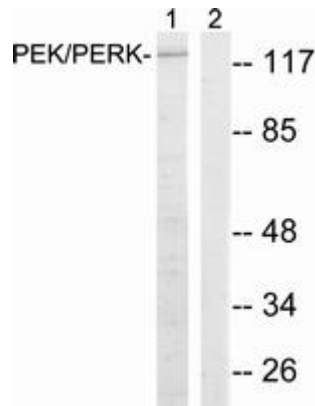
**Constituents:** PBS (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.3 containing 50% glycerol, 0.5% BSA and 0.02% sodium azide

**Research Areas:** Epigenetics and Nuclear Signaling

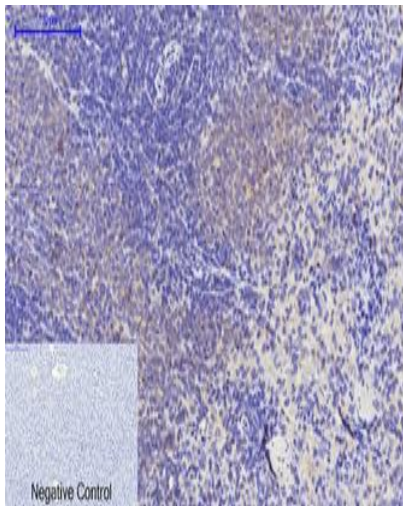
**Storage & Shipping:** Store at -20°C. Avoid repeated freezing and thawing



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



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



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.