

ARG66996
anti-PERK antibodyPackage: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PERK
Tested Reactivity	Hu, Ms
Predict Reactivity	Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PERK
Species	Human
Immunogen	Synthetic peptide corresponding to Human PERK.
Conjugation	Un-conjugated
Alternate Names	PRKR-like endoplasmic reticulum kinase; PERK; HsPEK; Eukaryotic translation initiation factor 2-alpha kinase 3; Pancreatic eIF2-alpha kinase; WRS; PEK; EC 2.7.11.1

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:200 - 1:500
	IHC-P	1:50 - 1:200
	WB	1:200 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~ 130-140 kDa	

Properties

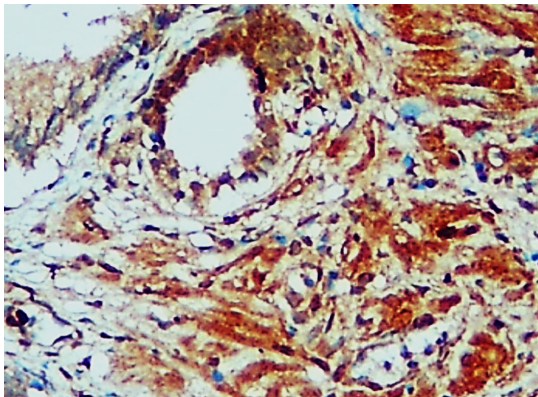
Form	Liquid
Purification	Affinity purified.
Buffer	100 mM Tris Glycine (pH 7.0), 0.025% ProClin 300 and 20% Glycerol.
Preservative	0.025% ProClin 300
Stabilizer	20% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

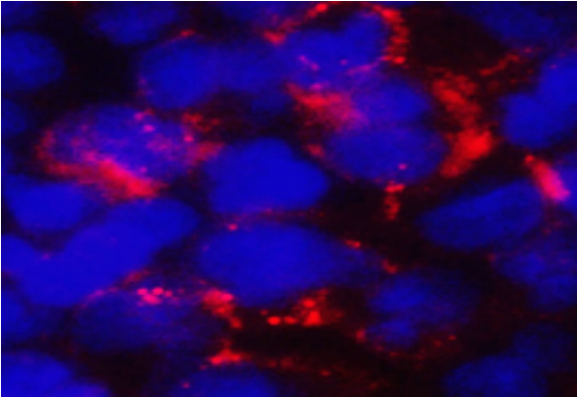
Gene Symbol	EIF2AK3
Gene Full Name	eukaryotic translation initiation factor 2-alpha kinase 3
Background	The protein encoded by this gene phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2, leading to its inactivation, and thus to a rapid reduction of translational initiation and repression of global protein synthesis. This protein is thought to modulate mitochondrial function. 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, Sep 2015]
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). Involved in control of mitochondrial morphology and function (By similarity). [UniProt]
Calculated Mw	125 kDa
PTM	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 (By similarity). 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. [UniProt]

Images



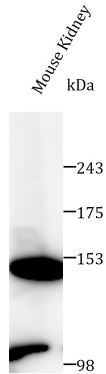
ARG66996 anti-PERK antibody IHC-p image

Immunohistochemistry: Formalin-fixed and paraffin-embedded human cancer tissue section stained with ARG66996 anti-PERK antibody.



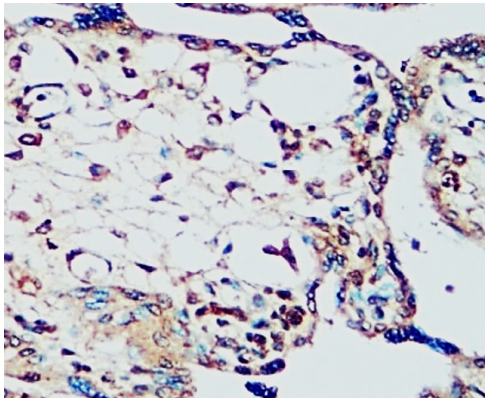
ARG66996 anti-PERK antibody ICC/IF image

Immunofluorescence: Formalin-fixed Raji cells were permeabilized with 0.1% NP-40 in TBS for 10 minutes and blocked with 5% BSA-PBS for 30 minutes at room temperature. Raji cell were stained with ARG66996 anti-PERK antibody.



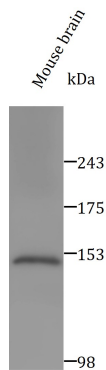
ARG66996 anti-PERK antibody WB image

Western blot: Mouse kidney stained with ARG66996 anti-PERK antibody at 1:500 dilution by 5% SDS-PAGE.



ARG66996 anti-PERK antibody IHC-p image

Immunohistochemistry: Formalin-fixed and paraffin-embedded human cancer tissue section stained with ARG66996 anti-PERK antibody.



ARG66996 anti-PERK antibody WB image

Western blot: Mouse brain stained with ARG66996 anti-PERK antibody at 1:500 dilution by 5% SDS-PAGE.