ARG66268
anti-PERK phospho (Thr982) antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PERK phospho (Thr982)
Tested Reactivity	Hu
Tested Application	IHC-P
Specificity	The antibody detects endogenous levels of PERK only when phosphorylated at threonine 982.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PERK
Species	Human
Immunogen	KLH-conjugated phospho-specific peptide around Thr982 (RHT(p)GQ) of 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
IHC-P	1:50 - 1:100

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

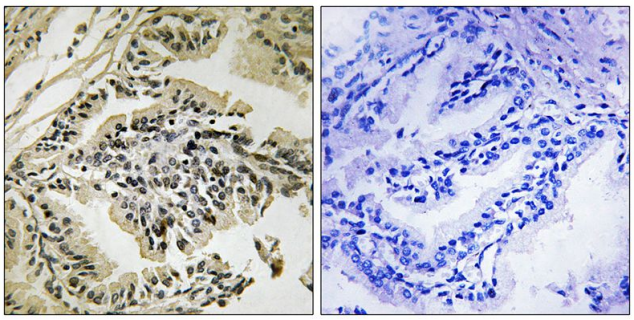
Properties

Form	Liquid
Purification	Affinity purification with phospho-specific peptide and the non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Buffer	PBS (pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
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. 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 malfolded 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



ARG66268 anti-PERK phospho (Thr982) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human prostate carcinoma tissue stained with ARG66268 anti-PERK phospho (Thr982) antibody (left) or the same antibody pre-incubated with blocking peptide (right).