

ARG66611 anti-PERK antibody

Package: 100 µg
Store at: -20°C

Summary

| | |
|---------------------|---|
| Product Description | Rabbit Polyclonal antibody recognizes PERK |
| Tested Reactivity | Hu |
| Tested Application | ICC/IF, WB |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | IgG |
| Target Name | PERK |
| Species | Human |
| Immunogen | Synthetic peptide within aa. 30-110 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 |
|-------------------|--|----------------|
| | ICC/IF | 1:200 - 1:1000 |
| | WB | 1:500 - 1:2000 |
| Application Note | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. | |
| Observed Size | ~ 125 kDa | |

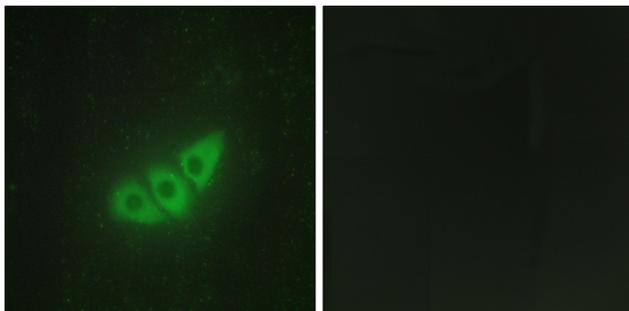
Properties

| | |
|---------------------|---|
| Form | Liquid |
| Purification | Affinity purification with immunogen. |
| Buffer | PBS, 0.02% Sodium azide, 50% Glycerol and 0.5% BSA. |
| Preservative | 0.02% Sodium azide |
| Stabilizer | 50% Glycerol and 0.5% BSA |
| 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

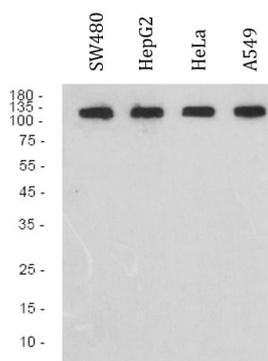
| | |
|-----------------------|--|
| Gene Symbol | EIF2AK3 |
| Gene Full Name | eukaryotic translation initiation factor 2-alpha kinase 3 |
| Background | The protein encoded by this gene phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2, leading to its inactivation, and 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 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] |
| Cellular Localization | Endoplasmic reticulum membrane; Single-pass type I membrane protein. [UniProt] |

Images



ARG66611 anti-PERK antibody ICC/IF image

Immunofluorescence: HepG2 cells stained with ARG66611 anti-PERK antibody. The picture on the right is blocked with the synthetic peptide.



ARG66611 anti-PERK antibody WB image

Western blot: SW480, HepG2, HeLa and A549 cell lysates stained with ARG66611 anti-PERK antibody at 4°C, overnight.