

Rabbit PERK Polyclonal Antibody | anti-EIF2AK3 antibody

PERK (EIF2AK3) Antibody (Center)

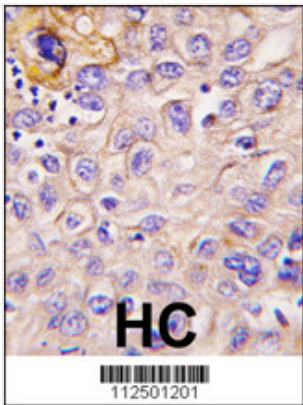
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA290719	Rabbit	Human; Predicted Reactivity: Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

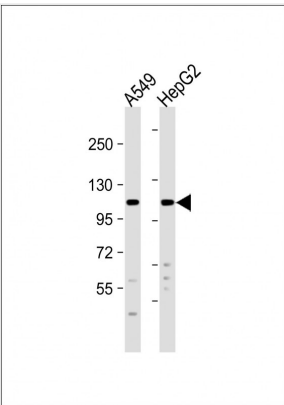
PERK; Polyclonal Antibody; PERK (EIF2AK3) Antibody (Center); Eukaryotic translation initiation factor 2-alpha kinase 3; PRKR-like endoplasmic reticulum kinase; Pancreatic eIF2-alpha kinase; HsPEK; EIF2AK3; PEK; anti-EIF2AK3 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human; Predicted Reactivity: Mouse, Rat
Clonality	Polyclonal
Isotype	Ig
Specificity	This PERK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the Center region of human EIF2AK3.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Sequence Length	1116
Applicable Applications for anti-EIF2AK3 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Subtitle	Purified Rabbit Polyclonal Antibody (Pab)
Cellular Location	Endoplasmic reticulum membrane; Single-pass type I membrane protein.
Tissue Location	Ubiquitous. A high level expression is seen in secretory tissues.
Antigen Type	Synthetic Peptide
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



IHC (Immunohistochemistry)
Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with EIF2AK3 antibody (Center) , which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



WB (Western Blot)
All lanes : Anti-EIF2AK3 Antibody (Center) at 1:1000 dilution
Lane 1: A549 whole cell lysate
Lane 2: HepG2 whole cell lysate
Lysates/proteins at 20 ug per lane.
Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.
Predicted band size : 125 kDa
Blocking/Dilution buffer: 5% NFD/MTBST.

ADDITIONAL INFORMATION

Related Product Information for anti-EIF2AK3 antibody	Description: EIF2AK3, a member of the GCN2 subfamily of Ser/Thr protein kinases, 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. This protein serves as a critical effector of unfolded protein response (UPR)-induced G1 growth arrest due to the loss of cyclin D1. It is proposed that perturbation in protein folding in the endoplasmic reticulum (ER) promotes reversible dissociation from HSPA5/BIP and oligomerization, resulting in transautophosphorylation and kinase activity induction Expression of this Type I membrane protein is ubiquitous, with a high level expression in secretory tissues. Defects in EIF2AK3 are the cause of Wolcott-Rallison syndrome (WRS), also known as multiple epiphyseal dysplasia with early-onset diabetes mellitus. WRS is a rare autosomal recessive disorder, characterized by permanent neonatal or early infancy insulin-dependent diabetes and, at a later age, epiphyseal dysplasia, osteoporosis, growth retardation and other multisystem manifestations, such as hepatic and renal dysfunctions, mental retardation and cardiovascular abnormalities. Background: 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).
Product Categories/Family for anti-EIF2AK3 antibody	Primary Antibodies; Metabolism
References	Delepine, M., et al., Nat. Genet. 25 (4):406-409 (2000). Shi, Y., et al., J. Biol. Chem. 274 (9):5723-5730 (1999). Sood, R., et al., Biochem. J. 346 Pt 2, 281-293 (2000).

NCBI AND UNIPROT INFORMATION

NCBI GI #	134304838
NCBI GeneID	9451
NCBI Accession #	NP_004827.4
NCBI GenBank Nucleotide #	NM_004836.6
UniProt Accession #	Q9NZJ5; O95846; Q53QY0; Q53SB1; A0AVH1; A0AVH2; B2RCU9
Molecular Weight	125216 Da
NCBI Official Full Name	eukaryotic translation initiation factor 2-alpha kinase 3 isoform 1
NCBI Official Synonym Full Names	eukaryotic translation initiation factor 2 alpha kinase 3

NCBI Official Symbol	EIF2AK3
NCBI Official Synonym Symbols	PEK; WRS; PERK
NCBI Protein Information	eukaryotic translation initiation factor 2-alpha kinase 3
UniProt Protein Name	Eukaryotic translation initiation factor 2-alpha kinase 3
UniProt Gene Name	EIF2AK3
UniProt Synonym Gene Names	PEK; PERK; HsPEK
UniProt Entry Name	E2AK3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/perk-antibody-immunohistochemistry-western-blot-elisa/290719>