

For Research Use Only

PERK/EIF2AK3 Polyclonal antibody

Catalog Number: 24390-1-AP

Featured Product

126 Publications



Basic Information

Catalog Number:

24390-1-AP

Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG18254

GenBank Accession Number:

BC126354

GeneID (NCBI):

9451

UNIPROT ID:

Q9NZJ5

Full Name:

eukaryotic translation initiation factor 2-alpha kinase 3

Calculated MW:

1116 aa, 125 kDa

Observed MW:

140 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:500-1:3000

IHC: 1:50-1:500

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, FC (Intra), ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human

Cited Species:

human, mouse, rat, pig, chicken, bovine, sheep

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, HepG2 cells, MCF-7 cells

IHC : human liver cancer tissue,

FC (Intra) : HeLa cells,

Background Information

PERK, also named as EIF2AK3 or PEK, belongs to the protein kinase superfamily, Ser/Thr protein kinase family and GCN2 subfamily. It acts as a metabolic-stress sensing protein kinase that phosphorylates the alpha subunit of eukaryotic translation initiation factor 2 (EIF2S1/elf-2-alpha) in response to various stress conditions. PERK and EIF2AK4 also have a functional role on regulating translation under non-stressed conditions, apart from their long established roles as stress kinases (PMID: 21638082). Defects in EIF2AK3 are the cause of Wolcott-Rallison syndrome (WRS). The molecular mass of PERK is 125 kDa and can be detected as 140 kDa or 170kDa due to some modifications such as glycosylation and phosphorylation (PMID: 20851775, 24371088, 21703327).

Notable Publications

Author	Pubmed ID	Journal	Application
Jun Shao	28950253	Cell Physiol Biochem	WB
Yu Sun	34562065	J Cell Mol Med	WB
Yaoyao Bian	36121296	Pharm Biol	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

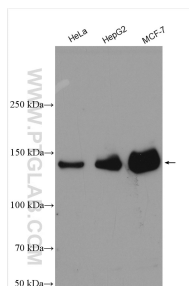
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

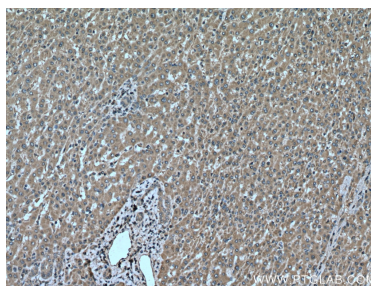
E: proteintech@ptglab.com
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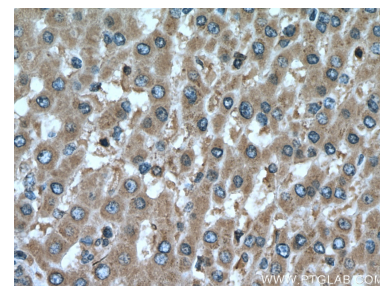
Selected Validation Data



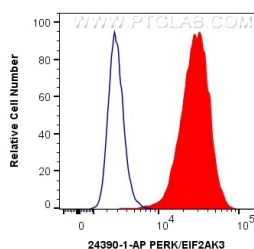
Various lysates were subjected to SDS PAGE followed by western blot with 24390-1-AP (PERK/EIF2AK3 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 24390-1-AP (PERK/EIF2AK3 antibody) at dilution of 1:200 (under 10x lens)..



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 24390-1-AP (PERK/EIF2AK3 antibody) at dilution of 1:200 (under 40x lens)..



1X10⁶ HeLa cells were intracellularly stained with 0.4 ug Anti-Human PERK/EIF2AK3 (24390-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).