For Research Use Only

Phospho-PERK/EIF2AK3 (Thr982) Recombinant antibody

Catalog Number:82534-1-RR 2 Publications

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Basic Information

Catalog Number:
82534-1-RR

Concentration:
1000 ug/ml

Source:
Rabbit

Isotype:
IgG

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:
180 kDa

Purification Method:
Protein A purification

CloneNo.:
4E16

Recommended Dilutions:
WB 1:2000-1:11200

Applications

Tested Applications:
WB, FC (Intra), ELISA

Cited Applications:
WB

Species Specificity:
human, mouse

Cited Species:
human

Positive Controls:

WB : Calyculin A treated HEK-293 cells, NIH/3T3 cells, Calyculin A treated NIH/3T3 cells

Background Information

EIF2AK3 encodes the protein kinase RNA-like ER kinase (PERK), a key regulator of the unfolded protein response (UPR) in response to ER stress. Under ER stress conditions, activation of PERK is triggered by the dissociation of glucose-regulated protein (GRP) 78 (also known as BiP) from its luminal domain, followed by oligomerization and autophosphorylation. Phosphorylated PERK subsequently phosphorylates eukaryotic translation initiation factor 2 alpha (eif2α), to attenuate global protein translation and reduce incoming ER protein load via upregulated ER chaperone expression. (PMID: 35922637, PMID: 32029570)

Notable Publications

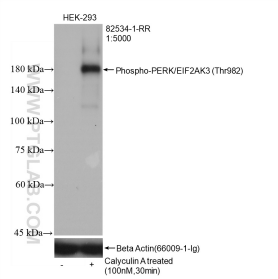
Author	Pubmed ID	Journal	Application
Yu Feng	39138149	Cell Death Dis	WB
Yu Han	38513524	Vet Microbiol	WB

Storage

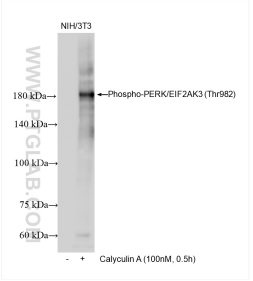
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

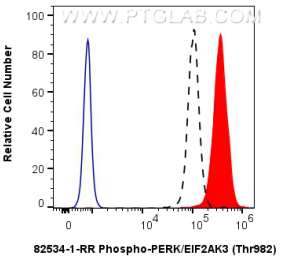
Selected Validation Data



Non-treated HEK-293 cells and Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 82534-1-RR (Phospho-PERK/EIF2AK3 (Thr982) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with beta actin antibody (66009-1-Ig) as loading control.



Non-treated NIH/3T3 cells and Calyculin A treated NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 82534-1-RR (Phospho-PERK/EIF2AK3 (Thr982) antibody) at dilution of 1:2500 incubated at room temperature for 1.5 hours.



1X10^6 HEK-293 cells untreated (dashed lines) or treated with Calyculin A (red) were intracellularly stained with 0.13 ug Phospho-PERK/EIF2AK3 (Thr982) Recombinant antibody (82534-1-RR, Clone:4E16) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.13 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.