

For Research Use Only

# Phospho-PERK/EIF2AK3 (Ser719) Polyclonal antibody

Catalog Number: 29546-1-AP

26 Publications



## Basic Information

### Catalog Number:

29546-1-AP

### Size:

100ul, Concentration: 250 ug/ml by Nanodrop;

### 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:

140 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:500-1:2000

## Applications

### Tested Applications:

WB, ELISA

### Cited Applications:

WB

### Species Specificity:

human

### Cited Species:

human, mouse, rat, zebrafish, bovine

### Positive Controls:

WB : λ phosphatase treated HeLa cells, Thapsigargin treated HeLa 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
Guanjun Li	39901156	Cell Commun Signal	WB
Tiantian Liu	39743026	Free Radic Biol Med	WB
Hongyu Hu	39787915	Bioorg Chem	WB

## Storage

### Storage:

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

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

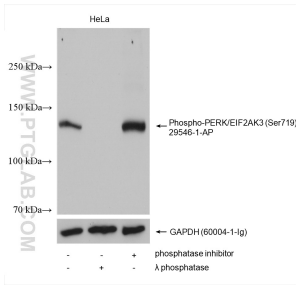
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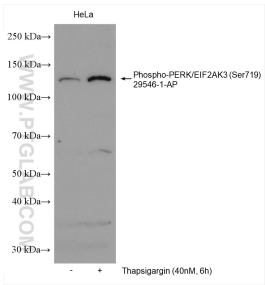
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## Selected Validation Data



Non-treated HeLa cells, phosphatase inhibitor treated and  $\lambda$  phosphatase treated HeLa cells were subjected to SDS PAGE followed by western blot with 29546-1-AP (Phospho-PERK/EIF2AK3 (Ser719) antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



Non-treated HeLa cells and Thapsigargin treated HeLa cells were subjected to SDS PAGE followed by western blot with 29546-1-AP (Phospho-PERK/EIF2AK3 (Ser719) antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.