For Research Use Only

Phospho-PERK/EIF2AK3 (Thr982) Recombinant antibody



Catalog Number:82534-1-RR

Basic Information

Catalog Number: 82534-1-RR

Size: 500 µ g/ml Source: Rabbit Isotype:

G G 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, ELISA

Species Specificity:

Human

Positive Controls:

WB: Calyculin A treated HEK-293 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 (eif2 a), to attenuate global protein translation and reduce incoming ER protein load via upregulated ER chaperone expression. (PMID: 35922637, PMID: 32029570)

Storage

Storage:

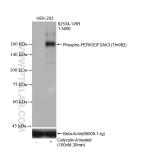
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

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

Aliquoting is unnecessary for -20°C storage

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 reblotted with beta actin antibody (66009-1-lg) as loading control.