For Research Use Only

Phospho-PERK/EIF2AK3 (Ser719) Recombinant antibody

Catalog Number:81251-2-RR



Basic Information

Catalog Number: GenBank Accession Number: 81251-2-RR BC126354
Concentration: GeneID (NCBI):

1000 μ g/ml 9451

Source: UNIPROT ID:
Rabbit Q9NZJ5

Isotype: Full Name:

eukaryotic translation initiation factor 2-alpha kinase 3

> Calculated MW: 1116 aa, 125 kDa Observed MW: 140 kDa

Applications

Tested Applications: WB, ELISA

Species Specificity: human, mouse

Purification Method: Protein A purification

CloneNo.: 243165A4

Recommended Dilutions: WB 1:5000-1:50000

Positive Controls:

WB: NIH/3T3 cells, λ phosphatase 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 (eif2 a), to attenuate global protein translation and reduce incoming ER protein load via upregulated ER chaperone expression. (PMID: 35922637, PMID: 32029570)

Storage

Storage:

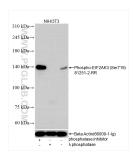
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

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

Aliquoting is unnecessary for -20°C storage

Selected Validation Data



Non-treated NIH/3T3 cells, phosphatase inhibitor treated and λ phosphatase NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 81251-2-RR (Phospho-PERK/EIF2AK3 (Ser719) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Actin (66009-1-Ig) antibody as loading control.