

## Eukaryotic translation initiation factor 2-alpha kinase 3

Catalog No: #AP78830



Package Size: #AP78830-1 50ug #AP78830-2 100ug #AP78830-3 1mg

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

## Description

Product Name	Eukaryotic translation initiation factor 2-alpha kinase 3
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% by SDS-PAGE
Species Reactivity	Human
Immunogen Description	Recombinant protein
Other Names	PEK,PERK,PRKR-like endoplasmic reticulum kinase,Pancreatic eIF2-alpha kinase,HsPEK
Accession No.	Q9NZJ5Gene name:EIF2AK3
Uniprot	Q9NZJ5
GeneID	9451;
Tag Info	His
Formulation	50mM NaH2PO4, 500mM NaCl Buffer with 500mM Imidazole,10%glycerol(PH8.0)
Storage	Store at -20C. (Avoid repeated freezing and thawing.)Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Background

Metabolic-stress sensing protein kinase that phosphorylates the alpha subunit of eukaryotic translation initiation factor 2 (eIF-2-alpha/EIF2S1) on 'Ser-52' during the unfolded protein response (UPR) and in response to low amino acid availability. Converts phosphorylated eIF-2-alpha/EIF2S1 either in a global protein synthesis inhibitor, leading to a reduced overall utilization of amino acids, or to a translation initiation activator of specific mRNAs, such as the transcriptional activator ATF4, and hence allowing ATF4-mediated reprogramming of amino acid biosynthetic gene expression to alleviate nutrient depletion. Serves as a critical effector of unfolded protein response (UPR)-induced G1 growth arrest due to the loss of cyclin-D1 (CCND1). Involved in control of mitochondrial morphology and function.

## References

Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Note: This product is for in vitro research use only