

Recombinant Human EIF2AK3

Cat. No. EIF2AK3-30644TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant cytoplasmic domain of Human PERK (amino acids 563-1115) with N terminal proprietary tag; 552 amino acids, MWt 115kDa; Genbank Number:
Species	Human
Source	E.coli
ProteinLength	554 amino acids
Description	The protein encoded by this gene phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2 (EIF2), leading to its inactivation, and thus to a rapid reduction of translational initiation and repression of global protein synthesis. It is a type I membrane protein located in the endoplasmic reticulum (ER), where it is induced by ER stress caused by malformed proteins. Mutations in this gene are associated with Wolcott-Rallison syndrome.
Molecular Weight	115.000kDa inclusive of tags
Tissue specificity	Ubiquitous. A high level expression is seen in secretory tissues.
Biological activity	The specific activity of EIF2AK3-30644TH was determined to be 18 nmol/min/mg by activity assay.
Form	Liquid

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Purity	>90% by SDS-PAGE
Storage buffer	Preservative: None Constituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 10mM Glutathione, 0.25mM DTT, 0.1mM EDTA, 0.1mM PMSF, pH 7.5
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	NKYDSVSGEANDSSWNDIKNSGYISRYLTDFEPIQCLGRGGFGVVFEAKNKVDDCN YAIKRIRLPNRELAREKVMREVKALAKLEHPGIVRYFNAWLEAPPEKWQEKMDIWL KDESTDWPLSSPSPMDAPSVKIRRMDFPATKEHIEIAPSPQRSRSFSVGISCDQTSS SESQFSPLEFSGMDHEDISESVDAAYNLQDSCLTDCDVEDGTMDGNDEGHSFELC PSEASPYVRSRERTSSSIVFEDSGCDNASSKEEPKTNRHLHGNHCANKLTAFKPTSS KSSSEATLSISPPRPTTSLDLTKNTTEKLQPSSPKVYLYIQMQLCRKENLKDWMNG RCTIEERERSVCLHIFLQIAEAVEFLHSGGLMHRDLKPSNIFFTMDDVVKVGDFGLVT AMDQDEEEQTVLTPMPAYARHTGQVGTKLYMSPEQIHGNSYSHKVDIFSLGLILFEL LYPFSTQMERTVRLTDVRNLKFPPLFTQKYPCEYVMVQDMLSPSPMERPEAINIEN AVFEDLDFFPGKTVLRQSRSLSSSGTKHSRQSNNSHSPLPSN
Sequence Similarities	Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. GCN2 subfamily. Contains 1 protein kinase domain.

GENE INFORMATION

Gene Name	EIF2AK3 eukaryotic translation initiation factor 2-alpha kinase 3 [Homo sapiens]
Official Symbol	EIF2AK3
Synonyms	EIF2AK3; eukaryotic translation initiation factor 2-alpha kinase 3; PEK; PERK;
Gene ID	9451

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mRNA Refseq	NM_004836
Protein Refseq	NP_004827
MIM	604032
Uniprot ID	Q9NZJ5
Chromosome Location	2p12
Pathway	Alzheimers disease, organism-specific biosystem; Alzheimers disease, conserved biosystem; Diabetes pathways, organism-specific biosystem; Hepatitis C, organism-specific biosystem; Hepatitis C, conserved biosystem;
Function	ATP binding; eukaryotic translation initiation factor 2alpha kinase activity; eukaryotic translation initiation factor 2alpha kinase activity; identical protein binding; nucleotide binding;

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