

## Product datasheet for **TP314993M**

### **PERK (EIF2AK3) (NM\_004836) Human Recombinant Protein**

#### Product data:

**Product Type:** Recombinant Proteins  
**Description:** Recombinant protein of human eukaryotic translation initiation factor 2-alpha kinase 3 (EIF2AK3), 100 µg  
**Species:** Human  
**Expression Host:** HEK293T  
**Expression cDNA Clone or AA Sequence:** >RC214993 representing NM\_004836  
**Red**=Cloning site **Green**=Tags(s)

MERAISPGLLVRALLLLLLLLGLAARTVAAGRARGLPAPTAAEAFGLGAAAAPTSTRVPAAGAVAAAEEV  
TVEDAEALPAAAGEQEPRGPEPDDTELPRGRSLVIISTLDGRIAALDPENHGKQWDLVDVSGSLVSS  
SLSKPEVFGNKMIIPSLDGALFQWDRDRESMETVPFTVESLLESSYKFGDDVVLVGGKSLTTYGLSAYSG  
KVRYICSALGCRQWDSDEMEQEEDILLQRTQKTVRAVGPRSGNEKWNFVSVGHFELRYIPDMETRAGFIE  
STFKPNENTEESKIISDVVEEQEAAIMDIVIKVSVADWKVMAFSKKGHLEWEYQFCTPIASAWLLKDGKV  
IPISLFDDTSYTSNDDVLEDEEDIVEAARGATENSVLGMYRGQLYLQSSVRISEKFPSSPKALESVTNE  
NAIIPPTIKWKPLIHSPSRTPVLVGSDEFDKLSNDKFSHEEYSNGALSILQYPYDNGYYLPYYKRERN  
KRSTQITVRFLDNPHYNKNIRKKDPVLLLHWWKEIVATILFCIIATTFIVRRLFHPPHRQRKESETQCQ  
TENKYDSVSGEANDSSWNDIKNSGYISRYLTDFEPIQCLGRGGFVFEAKNKVDDCNYAIKRIRLPNRE  
LAREKVMREVKALAKLEHPGIVRYFNAWLEAPPEKWQEKMDIWLKDESTDWPLSSPSPMDAPSVKIRRM  
DPFSTKEHIEIAPSPQRSRSFVSGISCDQTSSESQFSPLEFGMDHEDISESVDAAYNLQDSCLTDCD  
VEDGTMDGNDEGHSELCPEASPYVRSRERTSSSIVFEDSGCDNASSKEEPKTNRLHIGNHCANKLTAF  
KPTSSKSSSEATLSISPPRPTLSLDLTKNTEKLPSSPKVYLYIQMQLCRKENLKDWMNGRCTIEERE  
RSVCLHIFLQIAEAVEFLHSGMLMHRDLKPSNIFFTMDDVVKVGDVGLVTAMDQDEEQVTLTPMPAYAR  
HTGQVGTGLYMSPEQIHGNSYSHKVDIFSLGLILFELLYPFSTQMERVRTLDVRNLKFPPLFTQKYPCE  
YVMVQDMLSPSPMERPEAINIINAVFEDLDFPGKTVLRQRSRSLSSSGTKHSRQSNNSHSPLPSN

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

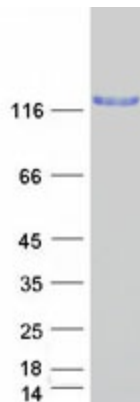
**Tag:** C-Myc/DDK  
**Predicted MW:** 122.1 kDa  
**Concentration:** >0.05 µg/µL as determined by microplate BCA method  
**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining  
**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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<b>Bioactivity:</b>	Binding assay (ITC) (PMID: <a href="#">28416388</a> )
<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_004827</a>
<b>Locus ID:</b>	9451
<b>UniProt ID:</b>	<a href="#">Q9NZJ5</a> , <a href="#">B3KY45</a>
<b>RefSeq Size:</b>	4511
<b>Cytogenetics:</b>	2p11.2
<b>RefSeq ORF:</b>	3348
<b>Synonyms:</b>	PEK; PERK; WRS
<b>Summary:</b>	The protein encoded by this gene phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2, leading to its inactivation, and thus to a rapid reduction of translational initiation and repression of global protein synthesis. This protein is thought to modulate mitochondrial function. 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. [provided by RefSeq, Sep 2015]
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Secreted Protein, Transmembrane
<b>Protein Pathways:</b>	Alzheimer's disease

### Product images:



Coomassie blue staining of purified EIF2AK3 protein (Cat# [TP314993]). The protein was produced from HEK293T cells transfected with EIF2AK3 cDNA clone (Cat# [RC214993]) using MegaTran 2.0 (Cat# [TT210002]).