

Product datasheet for RC214993L4

PERK (EIF2AK3) (NM_004836) Human Tagged Lenti ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | PERK (EIF2AK3) (NM_004836) Human Tagged Lenti ORF Clone |
| Tag: | mGFP |
| Symbol: | PERK |
| Synonyms: | PEK; PERK; WRS |
| Mammalian Cell Selection: | Puromycin |
| Vector: | pLenti-C-mGFP-P2A-Puro (PS100093) |
| E. coli Selection: | Chloramphenicol (34 ug/mL) |
| ORF Nucleotide Sequence: | The ORF insert of this clone is exactly the same as(RC214993). |
| Restriction Sites: | SgfI-MluI |
| Cloning Scheme: | |

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF.

| | |
|-----------|-----------|
| ACCN: | NM_004836 |
| ORF Size: | 3348 bp |



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OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_004836.3](#)

RefSeq Size: 4511 bp

RefSeq ORF: 3351 bp

Locus ID: 9451

UniProt ID: [Q9NZJ5](#)

Cytogenetics: 2p11.2

Domains: pkinase, TyrKc, S_TKc, PQQ

Protein Families: Druggable Genome, Protein Kinase, Secreted Protein, Transmembrane

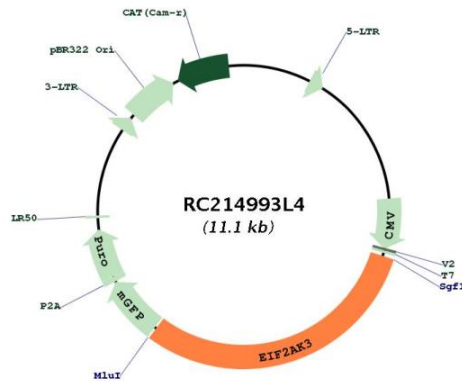
Protein Pathways: Alzheimer's disease

MW: 125.26 kDa

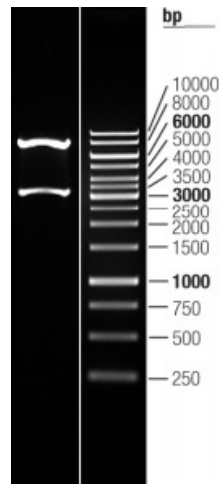
Gene Summary:

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]

Product images:



Circular map for RC214993L4



Double digestion of RC214993L4 using SgfI and MluI