

## Product datasheet for SC319028

### PHKA1 (NM\_001122670) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PHKA1 (NM_001122670) Human Untagged Clone
Tag:	Tag Free
Symbol:	PHKA1
Synonyms:	PHKA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC319028 representing NM_001122670. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
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 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

- Restriction Sites:** Sgfl-Mlul
- Plasmid Map:** □
- ACCN:** NM\_001122670
- Insert Size:** 3633 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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.

**RefSeq:** [NM\\_001122670.1](#)

**RefSeq Size:** 6138 bp

**RefSeq ORF:** 3633 bp

**Locus ID:** 5255

**UniProt ID:** [P46020](#)

**Cytogenetics:** Xq13.1

**Protein Families:** Druggable Genome

**Protein Pathways:** Calcium signaling pathway, Insulin signaling pathway

**MW:** 135.8 kDa

**Gene Summary:** Phosphorylase kinase is a polymer of 16 subunits, four each of alpha, beta, gamma and delta. The alpha subunit includes the skeletal muscle and hepatic isoforms, and the skeletal muscle isoform is encoded by this gene. The beta subunit is the same in both the muscle and hepatic isoforms, and encoded by one gene. The gamma subunit also includes the skeletal muscle and hepatic isoforms, which are encoded by two different genes. The delta subunit is a calmodulin and can be encoded by three different genes. The gamma subunits contain the active site of the enzyme, whereas the alpha and beta subunits have regulatory functions controlled by phosphorylation. The delta subunit mediates the dependence of the enzyme on calcium concentration. Mutations in this gene cause glycogen storage disease type 9D, also known as X-linked muscle glycogenosis. Alternatively spliced transcript variants encoding different isoforms have been identified in this gene. A pseudogene has been found on chromosome 1.[provided by RefSeq, Feb 2010]

Transcript Variant: This variant (2) lacks an alternate in-frame exon in the 3' coding region, compared to variant 1, resulting in a shorter protein (isoform 2), compared to isoform 1.