

## Product datasheet for **RG226362**

### PHKA1 (NM\_001122670) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PHKA1 (NM_001122670) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PHKA1
Synonyms:	PHKA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG226362 representing NM_001122670 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGGAGCCGGAGTAACTCCGGGGTCCGGCTGGACGGCTACGCTCGACTGGTGCACAGACCATCCTGT  
GCCATCAGAAATCCAGTGACTGGCTTGCTCCAGCCAGCTATGATCAGAAAGATGCTTGGGTCCGAGATAA  
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GACAGGTGGATAAAGTAGAATCCTTCAAATATAGTCAGAGTACTAAGGATAGCCTCCATGCAAAGTACAA  
CACAAAACCTGTGCCACTGTAGTGGGTGATGATCAATGGGGACACCTGCAGTTGGATGCTACCTCTGTG  
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TCATACAGAACCTTGTGTTTTACATTGAAGCTGCATATAAACTGCTGACTTCGGGATATGGGAACGTGG  
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GGTATACCCCATCAGAGTACAACCAGCTCGTATTCTCAGCCACATTTATCCAGCCTAGGATGCAACAAT



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AGAATGAAACTCAGTGGACGACCCTACAGACACATGGGAGTGCTTGGAACTTCAAACTCTATGACATTC  
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CGCATCTGGCATCTGTACTTTCTGTATGACAGTGCACCCAGTGGCAGGTTTGGCACCATGACCTACCTC  
TCCAAGGCAGCCGCCACCTACGTGCAGGAGTTCCTGCCCCACAGCATCTGTGCCATGCAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG226362 representing NM\_001122670  
 Red=Cloning site Green=Tags(s)

MRSRSNSGVRLDGYARLVQQTILCHQNPVTGLLPASYDQKDAWVRDNVYSILAVWGLGLAYRKNADRDED  
 KAKAYELEQSVVKLMRGLLHCMIRQVDKVESFKYSQSTKDSLHAKYNTKTCATVVGDDQWGHQLDQATSV  
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 ALDELDFGVKGGPQSVIHVLADEVQHCQSILNSLLPRASTSKEVDASLLSVVSFPFAVEDSQLVELTK  
 QEIIITKLQGRYGCCFLRDGYKTPKEDPNRLYEPALKLFENIECEWPLFWTYFILDGVFSGNAEQVQE  
 YKEALEAVLIKGNKGVPLPELVSPVPPDRVDEEQNPHTVDRVPMGKLPHMWQSLYILGSLMAEGFLAP  
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 RMKLSGRPYRHMVGLGTSKLYDIRKTIFFTPQFIDQQQFYALDNKMIVEMLRDLSYLCRWRMTGQP  
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 SLVTKAKELHVQNVHMYLPTKLFQASRPSFNLLDSPHPRQENQVPSVRVEIHLPRDQSGEVDFKALVLQL  
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 DEACTDLLSHQHLTVGLPPEPREKTISAPLPYEAL TQLIDEASEGDMSISILTQEIMVYLAMYMRTQPG  
 LFAEMFRLRIGLI IQVMATELAHSLRCSAEEATEGLMNLSPSAMKNLLHHILSGKEFGVERSVRPTDSNV  
 SPAISIEIGAVGATK TERTGIMQLKSEIKQSPGTSMT PSSGFSF SAYDQQSSKDSRQGWQRRRLDGA  
 LNRVPVGFYQKVKVLQKCHGLSVEGFVLPSSTTREMPGEIKFSVHVESVLRNRPQPEYRQLLVEAILV  
 LTMLADIEIHSIGSIIA VEKIVHIANDLFLQE QKTLGADDTMLAKDPASGICTLLYDSAPSGRFGTMYL  
 SKAAATYVQEF LPHSICAMQ

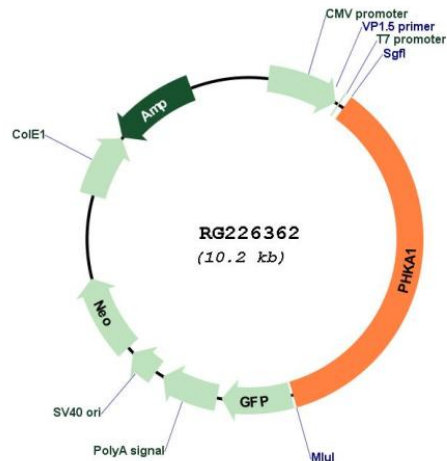
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_001122670

**ORF Size:** 3630 bp

**OTI Disclaimer:** 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.

**RefSeq:** [NM\\_001122670.1](#), [NP\\_001116142.1](#)

**RefSeq Size:** 6138 bp

**RefSeq ORF:** 3633 bp

**Locus ID:** 5255

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

**Cytogenetics:** Xq13.1

<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Calcium signaling pathway, Insulin signaling pathway
<b>Gene Summary:</b>	<p>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]</p>