

Product datasheet for **RG211553**

PHKA1 (NM_002637) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PHKA1 (NM_002637) 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:	>RG211553 representing NM_002637 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGAGCCGGAGTAACTCCGGGGTCCGGCTGGACGGCTACGCTCGACTGGTGCACAGACCATCCTGT
GCCATCAGAAATCCAGTGACTGGCTTGCTCCAGCCAGCTATGATCAGAAAGATGCTTGGGTCCGAGATAA
TGTGTACAGCATTTGGCTGTGTGGGGTTGGGCCTGGCCTATCGGAAGAATGCAGACCGGGATGAGGAT
AAGGCAAAGGCCATGAATTGGAGCAGAGTGTAGTGAAGCTGATGAGAGGACTACTGCATGCATGATCA
GACAGGTGGATAAAGTAGAATCCTTCAAATATAGTCAGAGTACTAAGGATAGCCTCCATGCAAAGTACAA
CACAAAACCTGTGCCACTGTAGTGGGTGATGATCAATGGGGACACCTGCAGTTGGATGCTACCTCTGTG
TACCTGCTCTTCTTAGCCCAAATGACTGCCTCAGGACTCCATATCATCCACAGCCTAGATGAAGTCAATT
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AAGTACAGCACTGCCAGTCTATCCTAAATTCACTACTGCCCGTGTCTCAACATCAAAGAGGTTGATGC
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CAGGAAATCATCACAAGCTTCAGGGTCGTTATGGTTGCTGTCGCTTTCTACGAGATGGATATAAAAAGT
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GGTATACCCCATCAGAGTACAACCAGCTCGTATTCTCAGCCACATTTATCCAGCCTAGGATGCAACAAT



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AGAATGAAACTCAGTGGACGACCCTACAGACACATGGGAGTGCTTGGAACTTCAAACTCTATGACATTC
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TCCAAGGCAGCCGCCACCTACGTGCAGGAGTTCCTGCCCCACAGCATCTGTGCCATGCAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG211553 representing NM_002637
 Red=Cloning site Green=Tags(s)

MRSRSNSGVRLDGYARLVQQTILCHQNPVTGLLPASYDQKDAWVRDNVYSILAVWGLGLAYRKNADRDED
 KAKAYELEQSVVKLMRGLLHCMIRQVDKVESFKYSQSTKDSLHAKYNTKTCATVVGDDQWGHQLDQDTSV
 YLLFLAQMNTASGLHIIHSLDEVNFIQNLVFYIEAAYKTADFGIWERGDKTNQGISLNASSVGMKAAL
 ALDELDFGVKGGPQSVIHVLADEVQHCQSILNSLLPRASTSKEVDASLLSVVSFPFAVEDSQLVELTK
 QEIITKLQGRYGCCFLRDGYKTPKEDPNRLYEPALCLKFENIECEWPLFWTYFILDGVSFSGNAEQVQE
 YKEALEAVLIKGNKGVPLPELVSVPDRVDEEQNPHTVDRVPMGKLPHMWQSLYILGSLMAEGFLAP
 GEIDPLNRRFSTVPKPDVVVQVSI LAETEEIKTILKDKGIYVETIAEVYPIRVQPARILSHIYSSLGCNN
 RMKLSGRPYRHMVGLGTSKLYDIRKTIFFTPQFIDQQQFYALDNKMIVEMLRDLSYLCRWRMTGQP
 TITFPISHMLDEDGTSLNSSILAALRKMQDGYFGGARVQTGKLEFLTTSCTHL SFMDPGPEGLYSE
 DYDDNYDYLESGNWMNDYDSTSHARCGDEVARYLDHLLAHTAPHPKLAPT SQKGGDRFQAAVQTTCDLM
 SLVTKAKELHVQNVHMYLPTKLFQASRPSFNLLDSPHPRQENQVPSVRVEIHLPRDQSGEVDFKALVLQL
 KETSSLQEADILYMLYTMKGPDWNTELYNERSATVRELLTELYGKVGEIRHWGLIRYISGILRKKVEAL
 DEACTDLLSHQHLTVGLPPEPREKTISAPLPYEAL TQLIDEASEGDMSISILTQEIMVYLAMYMRTQPG
 LFAEMFRLRIGLI IQVMATELAHSLRCSAEEATEGLMNLSPSAMKNLLHHILSGKEFGVERSVRPTDSNV
 SPAISIEHIGAVGATKERTGIMQLKSEIKQSPGTSMTSSGSPSAYDQSSKDSRQGWQRRRLDGA
 LNRVVPVGFYQKVKVLQKCHGLSVEGFVLPSSTTREMPGEIKFSVHVESVLRNRPQPEYRQLLVEAILV
 LTMLADIEIHSIGSIIAIVEKIVHIANDLFLQEQKTLGADDTMLAKDPASGICTLLYDSAPSGRFGTMYL
 SKAAATYVQEFLEPHSICAMQ

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

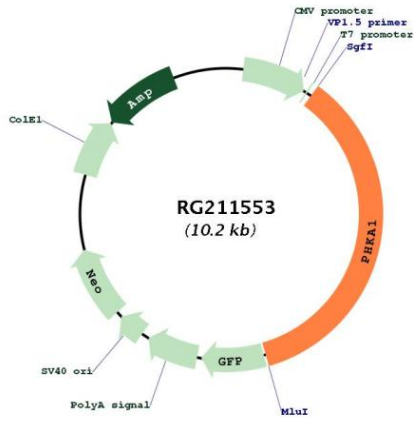


ACCN: NM_002637

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:	<ol style="list-style-type: none">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_002637.1 , NP_002628.1
RefSeq Size:	4215 bp
RefSeq ORF:	3672 bp
Locus ID:	5255
UniProt ID:	P46020
Cytogenetics:	Xq13.1
Protein Families:	Druggable Genome
Protein Pathways:	Calcium signaling pathway, Insulin signaling pathway
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]

Product images:



Circular map for RG211553