

Product datasheet for **RC212365**

PYGM (NM_005609) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PYGM (NM_005609) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PYGM
Synonyms:	GSD5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC212365 representing NM_005609
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCCGGCCCTGTCTCAGACCAAGAGAAAAGAAAGCAAATCAGTGTGCGTGGCCTGGCCGGCTGGGAGAG
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 CACCCACGAGACTACTTTTGTCTTGCCCATACCGTGCAGCACCTCGTGGGGCGCTGGATCCGC
 ACGCAGCAGCACTACTATGAGAAGGACCCAAAGAGGATCTACTACCTGTCTTTAGAGTTCTATATGGGAC
 GGACGCTACAGAACACCATGGTGAACCTGGCCTTAGAGAATGCCTGTGACGAGGCCACCTACCAGCTGGG
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC212365 representing NM_005609
 Red=Cloning site Green=Tags(s)

MSRPLSDQEKRKQISVRGLAGVENVTELVKKNFNRHLHFTLVKDRNVATPRDYFALAHTRVDRHLVGRWIR
 TQQHYEYKDPKRIYYLSLEFYMGRTLQNTMVNLALLENACDEATYQLGLDMEELEEIEEDAGLGNGLGRL
 AACFLDSMATLGLAAYGYGIRYEFGIQKISGGWQMEEDDLRYGNPWEKARPEFTLPVHFYGHVEHT
 SQGAKWVDTQVVLAMPYDTPVPGYRNNVNTMRLWSAKAPNDFNLKDFNVGGYIQAVLDRNLAENISRVL
 YPNDNFEGKELRLKQYFVVAATLQDIIRRFKSSKFGCRDPVRTNFDAFPDKVAIQLNDRNLAENISRVL
 MRILVDLERMDWKAWDVTRTCAYTNHTVLPALERWVHLLTLLPRHLQIIEINQRFLNRVAAAF
 GDVDRLLRMSLVEEGAVKRINMAHLIAGSHAVNGVARIHSEILKKTIFKDFYELEPHKFQKNTNGITPR
 RWLVLCNPGLAEVIAERIGEDFISDLQRLKLLSFVDDEAFIRDVAKVKQENKLFKAAYLERYKVHINP
 NSLFDIQVKRIHEYKRQLLNCLHVITL YNRIKREPKNFFVPRVMIGGKAAPGYHMAKMIIRLVTAIGDV
 VNHDPVAGDRLRVIFLENYRVS LAEKVIPAADLSEQISTAGTEASGTGMKFMLNGALTIGTMDGANVEM
 AEEAGEENFFIFGMRVEDVDKLDQRGYNAQEYYDRIPELRQVIEQLSSGFFSPKQPDFKDIVNMLMHHD
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 AI

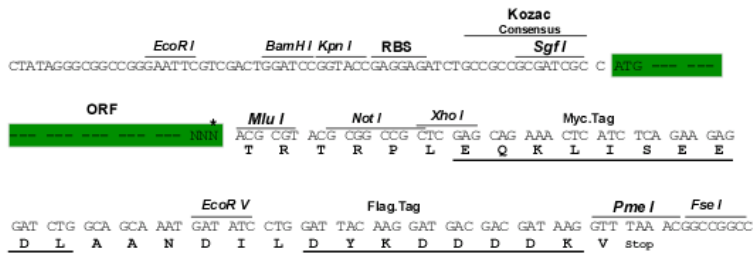
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6204_h11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

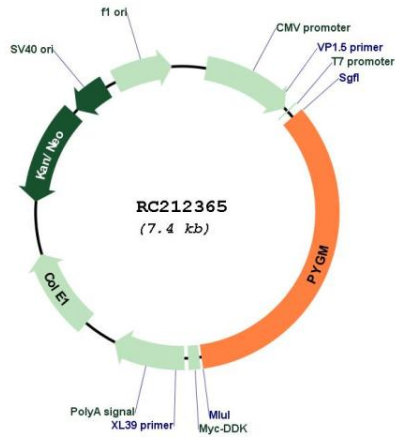
Cloning sites used for ORF Shuttling:



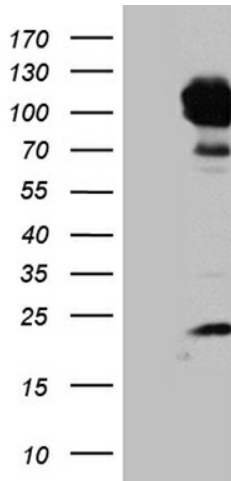
* The last codon before the Stop codon of the ORF

ACCN:	NM_005609
ORF Size:	2526 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_005609.4
RefSeq Size:	3447 bp
RefSeq ORF:	2529 bp
Locus ID:	5837
UniProt ID:	P11217
Cytogenetics:	11q13.1
Domains:	phosphorylase
Protein Families:	Druggable Genome
Protein Pathways:	Insulin signaling pathway, Starch and sucrose metabolism
MW:	96.9 kDa
Gene Summary:	This gene encodes a muscle enzyme involved in glycogenolysis. Highly similar enzymes encoded by different genes are found in liver and brain. Mutations in this gene are associated with McArdle disease (myophosphorylase deficiency), a glycogen storage disease of muscle. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Sep 2009]

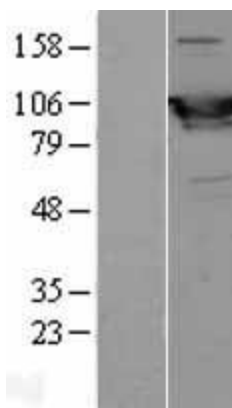
Product images:



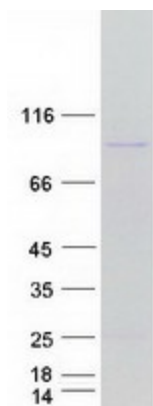
Circular map for RC212365



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PYGM (Cat# RC212365, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PYGM (Cat# [TA811300])(1:2000). Positive lysates [LY401719] (100ug) and [LC401719] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401719]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212365 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PYGM protein (Cat# [TP312365]). The protein was produced from HEK293T cells transfected with PYGM cDNA clone (Cat# RC212365) using MegaTran 2.0 (Cat# [TT210002]).