

## Product datasheet for **RC228572**

### **PYGM (NM\_001164716) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PYGM (NM_001164716) 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)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC228572 representing NM\_001164716  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTCCCGGCCCTGTGACAGCAAGAGAAAAGAAAGCAAATCAGTGTGCGTGGCCTGGCCGGCGTGGAGA  
ACGTGACTGAGCTGAAAAAGAACTTCAACCGGCACCTGCATTTACACTCGTAAAGGACCGCAATGTGGC  
CACCCACGAGACTACTTTTGTCTGTGCCCATACCGTGCGGACCACCTCGTGGGGCGCTGGATCCGC  
ACGCAGCAGCACTACTATGAGAAGGACCCCAAGAAGATCTCCGGGGCTGGCAGATGGAGGAGGCCGATG  
ACTGGCTTCGCTACGGCAACCCCTGGGAGAAGGCCCGCCGAGTTACGCTACCTGTGCACTTCTACGG  
CCATGTGGAGCACACCAGCCAGGGTGCCAAAGTGGGTGGACACACAGGTGGTACTGGCCATGCCCTACGAT  
ACGCCCCGTGCCTGGCTATCGCAACAATGTTGTCAACACCATGCGCCTCTGGTCTGCCAAGGCTCCCAATG  
ACTTCAACCTCAAGGACTTCAATGTCGGTGGCTACATCCAGGCTGTGTTGGACCGAAACCTGGCGGAGAA  
CATCTCTCGTGTCTGTACCCCAATGATAATTTCTTCAAGGGAAGGAGCTGCGGCTGAAGCAGGAGTAT  
TTCGTGGTGGCTGCCACCTCCAGGACATCATCGTCTGCTTCAAGTCTTCCAAGTTCGGCTGCCGTGATC  
CCGTGCGCACGAACCTTCGATGCCTTCCAGATAAGGTGGCCATCCAGCTCAATGACACCCACCCCTCCCT  
GGCCATCCCCGAGCTGATGAGGATCCTGGTGGACCTGGAACGGATGGACTGGGACAAGGCGTGGGATGTG  
ACAGTGAGGACCTGTGCCTACACCAACCACACGGTGTGCCCGAGGCCCTGGAGCGCTGGCCGGTGCACC  
TCTTGGAGACGCTGTGCCGCGGCACCTCCAGATCATCTACGAGATCAACCAGCGCTTCTCAACCCGGT  
GGCGGCCGCAATCCCAGGGGACGTAGACCGGCTGCGGCGCATGTCGCTGGTGGAGGAGGGCGCAGTGAAG  
CGCATCAACATGGCACACCTGTGCATCGCGGGTTCGCACGCCGTCAACGGCGTGGCGGCATCCACTCCG  
AGATCCCAAGAAGACCATCTTCAAAGACTTCTATGAGCTGGAGCCTCATAAGTCCAGAATAAGACCAA  
CGGCATACCCCTCGGCGCTGGCTGGTTCTGTGTAAACCCGGGCTGGCAGAGGTCAATTGCTGAGCGCATC  
GGGAGGACTTCTCTGACCTGGACAGCTGCGCAAACCTGCTCTCCTTTGGATGATGAAGCTTCA  
TTCGGGATGTGGCCAAAGTGAAGCAGGAAAAAAGTTGAAGTTTGTGCCTACCTAGAGAGGGAATACAA  
AGTCCACATCAACCCCAACTCACTCTTCGACATCCAGGTGAAGCGGATTCACGAATATAAACGACAGCTC  
CTCAACTGCCTCCATGTCATCACCTGTACAACCGCATCAAGAGGGAGCCCAATAAGTTTTTTGTGCCTC  
GGACTGTGATGATTGGAGGGAAGGCTGCACCTGGGTACCACATGGCCAAGATGATCATCAGACTCGTCAC  
AGCCATCGGGATGTGGTCAACCATGACCCGGCAGTGGGTGACCGCCTCCGTGTCATCTTCTGGAGAAC  
TACCGAGTCTCACTGGCCGAGAAAGTATCCCAGCTGCAGACCTCTCTGAGCAGATCTCCACTGCGGGCA  
CTGAAGCCTCAGGCACCGCAACATGAAGTTCATGCTCAACGGGCTCTGACCATTGGCACCATGGACGG  
GGCAATGTGGAGATGGCAGAAGAGGCGGGAGAGGAAAACCTTCTCATCTTTGGCATGCGGGTGGAGGAT  
GTGGATAAGCTTGACAAAGAGGGTACAATGCCAGGAGTACTACGATCGCATTCTGAGCTTGGCAGG  
TCATTGAGCAGCTGAGCAGTGGCTTCTTCTCCCCAAACAGCCCGACCTGTTCAAGGACATTGTCAATAT  
GCTCATGCACCATGACCGGTTTAAAGTCTTCGAGATTATGAAGACTACATTAATGCCAGGAGAAAAGTC  
AGCGCCTGTACAAGAACCAAGAGAGTGGACGCGGATGGTATCCGGAACATAGCCACCTCTGGCAAGT  
TCTCCAGTGACCGCACCATTTGCCAGTATGCCCGGAGATCTGGGTGTGGAGCCTTCCCGCCAGCGCCT  
GCCAGCCCCGGATGAGGCCATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC228572 representing NM\_001164716  
Red=Cloning site Green=Tags(s)

```
MSRPLSDQEKRKQISVRGLAGVENVTELKKNFNRHLHFTLVKDRNVATPRDYFALAHTVRDHLVGRWIR
TQQHYEYKDPKISGGWQMEADDWLRYPGWEKARPEFTLPVHFYGHVEHTSQGAKWVDTQVVLAMPYD
TPVPGYRNNVNTMRLWSAKAPNDFNLKDFNVGGYIQAVLDRNLAENISRVLYPNDNFEGKELRLKQEY
FVVAATLQDIIRRFKSSKFGCRDPVRTNFDAFPDKVAIQLNDRHSLAIPELMRILVDLERMDWDKAWDV
TVRTCAYTNHTVLPALERWPVHLLLETLPRHLQIIYEINQRFNLNRVAAAFPGDVDRLRMSLVEEGAVK
RINMAHLCIAGSHAVNGVARIHSEILKKTIFKDFYELEPHKFQNKNTNGITPRRWLVLCNPGLAEVIAERI
GEDFISDLQRLKLLSFVDDEAFIRDVAVKQENKLFKFAAYLERYKVIHNPNSLFDIQVKRIHEYKRQL
LNCLHVITLYNRIKREPKNFFVPRVTMIGGKAAPGYHMAKMIIRLVTAIGDVVNHDPAVGDRLRVIFLEN
YRVSLAEKVIPAADLSEQISTAGTEASGTGNMKFMLNGALTIGTMDGANVEMAEAEAGEENFFIFGMRVED
VDKLDQRGYNAAQYYDRIPELRQVIEQLSSGFFSPKQPDLFKDIVNMLMHHDRFKVFADYEDYIKCQEKV
SALYKNPREWTRMIVIRNIATSGKFSDDRTIAQYAREIWGVEPSRQRLPAPDEAI
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8038\\_g05.zip](https://cdn.origene.com/chromatograms/mk8038_g05.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\_001164716

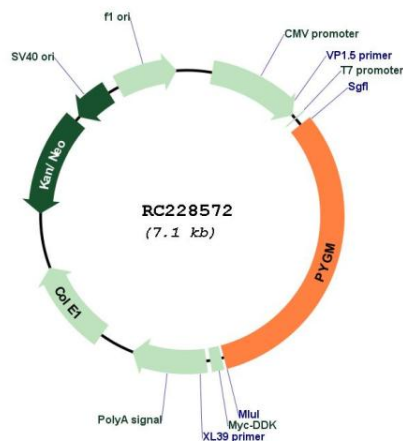
**ORF Size:** 2262 bp

**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](#)

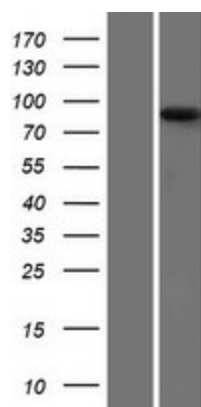
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001164716.1</u> , <u>NP_001158188.1</u>
<b>RefSeq ORF:</b>	2265 bp
<b>Locus ID:</b>	5837
<b>UniProt ID:</b>	<u>P11217</u>
<b>Cytogenetics:</b>	11q13.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Insulin signaling pathway, Starch and sucrose metabolism
<b>MW:</b>	87.1 kDa
<b>Gene Summary:</b>	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]

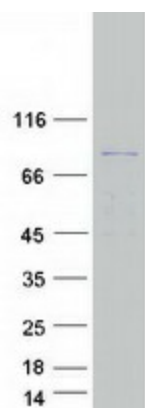
### Product images:



Circular map for RC228572



Western blot validation of overexpression lysate (Cat# [LY431600]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228572 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PYGM protein (Cat# [TP328572]). The protein was produced from HEK293T cells transfected with PYGM cDNA clone (Cat# RC228572) using MegaTran 2.0 (Cat# [TT210002]).