

## Product datasheet for **RC202077**

### GPBB (PYGB) (NM\_002862) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GPBB (PYGB) (NM_002862) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GPBB
Synonyms:	GPBB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC202077 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGAAGCCGCTGACGGACAGCGAGAAGCGGAAGCAGATCAGCGTGCCGGCCTGGCGGGCTAGGCC  
 ACGTGCCGAGGTGCGGAAGAGCTTCAACCGGCACTTGCACTTACGCTGGTCAAGGACCGCAATGTGGC  
 CACGCCCGCGACTACTTCTTCGCGCTGGCGCACACGGTGCGCGACCACCTCGTGGGCGCTGGATCCGC  
 ACGCAGCAGCACTACTACGAGCGGACCCCAAGCGCATTATTATCTTTCCCTGGAATTCTACATGGGTC  
 GCACGCTGCAGAACACGATGGTGAACCTGGGCCTCAGAATGCCTGCGATGAAGCCATCTACAGTTGGG  
 GTTAGACTTGGAGGAACCGAGGAGATAGAAGAAGATGCTGGCCTTGGGAATGGAGGCTGGGGAGGCTG  
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 TTGGGATTTTTAACAGAAGATTGTCAATGGCTGGCAGGTAGAGGAGGCCGATGACTGGCTGCGCTACGG  
 CAACCCCTGGGAGAAAGCGCGCCTGAGTATATGCTTCCCGTGCACTTCTACGGACGCGTGGAGCACACC  
 CCCGACGGCGTGAAGTGGCTGGACACACAGGTGGTGTGTCGCCATGCCCTACGACACCCAGTGCCCGGCT  
 ACAAGAACAACCCGTCACACCATGCGGCTGTGGTCCGCCAAGGCTCCCAACGACTTCAAGCTGCAGGA  
 CTTCAACGTGGGAGACTACATCGAGGCGGTCTGGACCGGAATTGGCTGAGAACATCTCCAGGGTCTCTG  
 TATCCAATGATAACTTCTTTGAGGGGAAGGAGCTGCGGCTGAAGCAGGAGTACTTCGTGGTGGCCGCCA  
 CGCTCCAGGACATCATCCGCCGTTCAAGTCGTCGAAGTTCGGCTGCCGGGACCCGTGAGAACCTGTTT  
 CGAGACGTTCCAGACAAGGTGGCCATCCAGCTGAACGACACCCACCCCGCCCTCCATCCCTGAGCTC  
 ATGCGGATCCTGGTGGACGTGGAGAAGGTGGACTGGGACAAGGCTGGGAATCACAAGAAGACCTGTG  
 CATAACCAACCACTGTCTGCCTGAGGCCTTGGAGCGCTGGCCGCTGTCATGTTTGAAGAAGCTGTG  
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 GGTCTTTAAGGATTTTTATGAACTGGAGCCAGAGAAGTCCAGAATAAGACCAATGGCATCACCCCCCGC  
 CGGTGGCTGTGCTGTGCAACCCGGGCTGGCCGATACCATCGTGGAGAAAATTGGGAGGAGTTCCTGA  
 CTGACCTGAGCCAGTGAAGAAGCTGCTGCCGCTGGTCAGTGACGAGGTGTTTCATCAGGGACGTGGCCAA  
 GGTCAAACAGGAGAACAAGCTCAAGTTCGCGCTTCTGGAGAAGGAGTACAAGGTGAAGATCAACCCC  
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 TCGTACCCTGTACAATCGAATCAAGAGAGACCCGGCCAAGGCTTTTGTGCCAGGACTGTTATGATTGG  
 GGGCAAGGCAGCGCCCGTTACCACATGGCCAAGCTGATCATCAAGTTGGTACCTCCATCGGCGACGTC  
 GTCAATCATGACCAGTGTGGGTGACAGGTTGAAAGTATCTTCTGGAGAACTACCGTGTGTCCTTGG  
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 GCCGAGGAGGCCGGGCGGAGAACCTTTCATCTTCGGCTGCGGTGGAGGATGTGAGGCCTTGGACC  
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 CCCCAGGAC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202077 protein sequence  
 Red=Cloning site Green=Tags(s)

MAKPLTDSEKRRKQISVRGLAGLDVAEVRKSFNRHLHFTLVKDRNVATPRDYFFALAHTVRDHLVGRWIR  
 TQQHYERDPKRIYYLSLEFYMGRTLQNTMVNLGLQNACDEAIYQLGLDLEELIEEDAGLGNGGLGRL  
 AACFLDSMATLGLAAYGYGIRYEFGI FNQKIVNGWQVEEADDWLR YGNPWEKARPEYMLPVHFYGRVEHT  
 PDGVKWLDTQVVLAMPYDTPVPGYKNNVTNMR LWSAKAPNDFKLQDFNVGDYIEAVLDRNLAENISRVL  
 YPNDNFEGKELRLKQEYFVVAATLQDI IRRFKSSKFGCRDPVRTCFETFPDKVAIQLNDTHPALSIPEL  
 MRILVDVEKVDWDKAWETTKKTCA YTNHTVLPALERWPVSMFEKLLPRHLEI IYAINQRHLDHVAALFP  
 GDVDRLLRMSVIEEGDCKRINMAHL CVIGSHAVNGVARIHSEIVKQSVFKDFYELEPEKFQKNTNGITPR  
 RWLLLCNPLADTIVEKIGEEFL TDSLQ LKLLPLVSDEVFIRDVAKVKQENKLFSAFLEKEYKVINP  
 SSMFDVHVKRIHEYKRQLLNCLHVVTLYNR IKRDPAKAFVPRVMIGGKAAPGYHMAKLI IKLVTSIGDV  
 VNHPVVGDRLLKVI FLENYRVSLAEKVIPAADL SQIISTAGTEASGTG NMKFMLNGALTIGTMDGANVEM  
 AEEAGAENLFI FGLRVEDVEALDRKGYNAREYDHLPEL KQAVDQISSGFFSPKEPDCFKDIVNMLMHH  
 RFKVFADEAYMQCQAQVDQLYRNPKEWTKKVI RNIACSGKSSDRTITEYAREIWGVESDLQIPPPNI  
 PRD

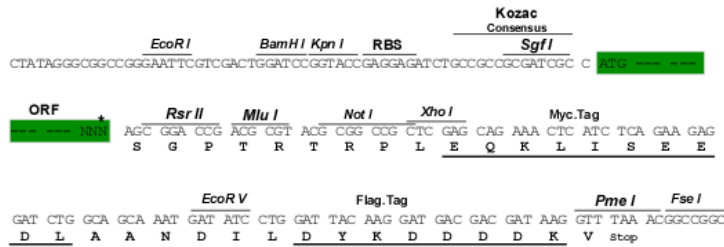
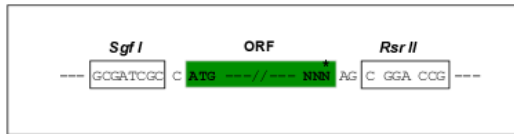
SGPTRRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6623\\_b06.zip](https://cdn.origene.com/chromatograms/mk6623_b06.zip)

Restriction Sites: SgfI-RsrII

Cloning Scheme:

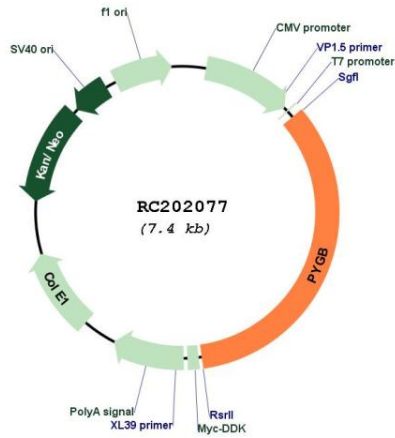
Cloning sites used for ORF Shuttling:



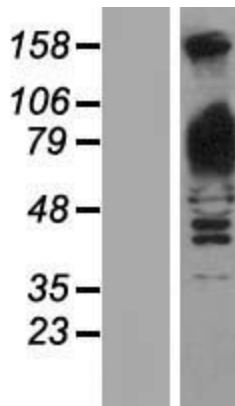
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_002862
<b>ORF Size:</b>	2529 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	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>	<a href="#">NM_002862.4</a>
<b>RefSeq Size:</b>	4131 bp
<b>RefSeq ORF:</b>	2532 bp
<b>Locus ID:</b>	5834
<b>UniProt ID:</b>	<a href="#">P11216</a>
<b>Cytogenetics:</b>	20p11.21
<b>Domains:</b>	phosphorylase
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Insulin signaling pathway, Starch and sucrose metabolism
<b>MW:</b>	96.7 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a glycogen phosphorylase found predominantly in the brain. The encoded protein forms homodimers which can associate into homotetramers, the enzymatically active form of glycogen phosphorylase. The activity of this enzyme is positively regulated by AMP and negatively regulated by ATP, ADP, and glucose-6-phosphate. This enzyme catalyzes the rate-determining step in glycogen degradation. [provided by RefSeq, Jul 2008]

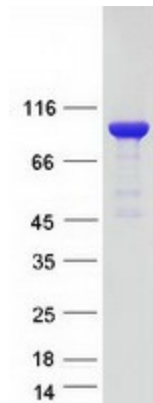
Product images:



Circular map for RC202077



Western blot validation of overexpression lysate (Cat# [LY419055]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202077 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PYGB protein (Cat# [TP302077]). The protein was produced from HEK293T cells transfected with PYGB cDNA clone (Cat# RC202077) using MegaTran 2.0 (Cat# [TT210002]).