

Product datasheet for **RG202105**

BPGM (NM_199186) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
 Product Name: BPGM (NM_199186) Human Tagged ORF Clone
 Tag: TurboGFP
 Symbol: BPGM
 Synonyms: DPGM; ECYT8
 Mammalian Cell Selection: Neomycin
 Vector: pCMV6-AC-GFP (PS100010)
 E. coli Selection: Ampicillin (100 ug/mL)
 ORF Nucleotide Sequence: >RG202105 representing NM_199186
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCCAAGTACAACTTATTATGTTAAGACATGGAGAGGGTGCTTGAATAAGGAGAACCCTTTTGT
 GCTGGGTGGATCAGAACTCAACAGCGAAGGAATGGAGGAAGCTCGAACTGTGGGAAGCAACTCAAAGC
 GTTAACTTTGAGTTTGATCTTGTATTCACATCTGTCCTAATCGGTCCATTCACACAGCCTGGCTGATC
 CTGGAAGAGCTAGGCCAGGAATGGGTGCCTGTGAAAAGCTCCTGGCGTCTAAATGAGCGTCACTATGGG
 CCTTGATCGGTCTCAACAGGGAGCAGATGGCTTTGAATCATGGTGAAGAACAAGTGAAGGCTCTGGAGAAG
 AAGCTACAATGTAACCCCGCCTCCCATTTGAGGAGTCTCATCCTTACTACCAAGAAATCTACAACGACCGG
 AGGTATAAAGTATGCGATGTGCCCTTGGATCAACTGCCACGGTCGAAAAGCTTAAAGGATGTTCTGGAGA
 GACTCCTTCCCTATTGGAATGAAAGGATTGCTCCCGAAGTATTACGTGGCAAAACCATTCTGATATCTGC
 TCATGGAATAGCAGTAGGGCACTCCTAAAACCTGGAAGGTATCTCAGATGAAGACATCATCAACATT
 ACTCTTCTACTGGAGTCCCATTTCTTCTGGAATTGGATGAAAACCTGCGTGCTGTTGGGCTCATCAGT
 TCCTGGGTGACCAAGAGGCGATCCAAGCAGCCATTAAGAAAGTAGAAGATCAAGGAAAAGTGAACAAGC
 TAAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG202105 representing NM_199186
Red=Cloning site Green=Tags(s)

MSKYKLIMLRHGEGAWNKENRFCSWVDQKLNSEGMEEARNCGKQLKALNFEFDLVFTSVLNRSIHTAWLI
 LEELGQEWVPESSWRLNERHYGALIGLNREQMALNHGEEQVRLWRRSYNVTPPPTEESHPIYYQEIYNDR
 RYKVCVPLDQLPRSESLKDVLERLLPYWNERIAPEVLRGKTILISAHGNSRRALLKHLEGISDEDIINI
 TLPTGVPILLELDENLRAVGP HQFLGDQEA IQAAIKKVEDQGKVKQAKK

TRTRPLE - GFP Tag - V

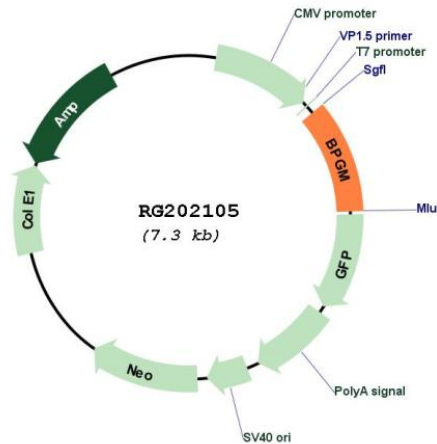
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_199186

ORF Size: 777 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_199186.2 , NP_954655.1
RefSeq Size:	2074 bp
RefSeq ORF:	780 bp
Locus ID:	669
UniProt ID:	P07738
Cytogenetics:	7q33
Protein Families:	Druggable Genome
Protein Pathways:	Glycolysis / Gluconeogenesis, Metabolic pathways
Gene Summary:	2,3-diphosphoglycerate (2,3-DPG) is a small molecule found at high concentrations in red blood cells where it binds to and decreases the oxygen affinity of hemoglobin. This gene encodes a multifunctional enzyme that catalyzes 2,3-DPG synthesis via its synthetase activity, and 2,3-DPG degradation via its phosphatase activity. The enzyme also has phosphoglycerate phosphomutase activity. Deficiency of this enzyme increases the affinity of cells for oxygen. Mutations in this gene result in hemolytic anemia. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Sep 2009]