

Product datasheet for **RG223838**

BPGM (NM_001724) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: BPGM (NM_001724) 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: >RG223838 representing NM_001724
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCCAAGTACAACTTATTATGTTAAGACATGGAGAGGGTGCTTGAATAAGGAGAACCCTTTTTGTA
GCTGGGTGGATCAGAACTCAACAGCGAAGGAATGGAGGAAGCTCGAACTGTGGGAAGCAACTCAAAGC
GTTAACTTTGAGTTTGATCTTGTATTCACATCTGTCCTAATCGGTCCATTCACACAGCCTGGCTGATC
CTGGAAGAGCTAGGCCAGGAATGGGTGCCTGTGAAAAGCTCCTGGCGTCTAAATGAGCGTCACTATGGG
CCTTGATCGGTCTCAACAGGGAGCAGATGGCTTTGAATCATGGTGAAGAACAAGTGAAGGCTCTGGAGAAG
AAGCTACAATGTAACCCCGCCTCCATTGAGGAGTCTCATCCTTACTACCAAGAAATCTACAACGACCGG
AGGTATAAAGTATGCGATGTGCCCTTGATCAACTGCCACGGTCGAAAAGCTTAAAGGATGTTCTGGAGA
GACTCCTTCCCTATTGGAATGAAAGGATTGCTCCCGAAGTATTACGTGGCAAAACCATTCTGATATCTGC
TCATGGAATAGCAGTAGGGCACTCCTAAAACCTGGAAGGTATCTCAGATGAAGACATCATCAACATT
ACTCTTCTACTGGAGTCCCATTTCTTCTGGAATTGGATGAAAACCTGCGTGCTGTTGGGCTCATCAGT
TCCTGGTGACCAAGAGGCGATCCAAGCAGCCATTAAGAAAGTAGAAGATCAAGGAAAAGTGAACAAGC
TAAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG223838 representing NM_001724
Red=Cloning site Green=Tags(s)

MSKYKLIMLRHGEGAWNKENRFCSWVDQKLNSEGMEEARNCGKQLKALNFEFDLVFTSVLNRSIHTAWLI
 LEELGQEWVPESSWRLNERHYGALIGLNREQMALNHGEEQVRLWRRSYNVTPPP IEE SHPYQEIYNDR
 RYKVC DVPLDQLPRSESLKDVLERLLPYWNERIAPEVLRGKTILISAHGNSRRALLKHLEGISDEDIINI
 TLPTGVPILLELDENLRAVGPHQFLGDQEA IQAAIKKVEDQGKVKQAKK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001724

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:

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_001724.5](#)

RefSeq Size: 1769 bp

RefSeq ORF: 780 bp

Locus ID: 669

UniProt ID: [P07738](#)

Cytogenetics: 7q33

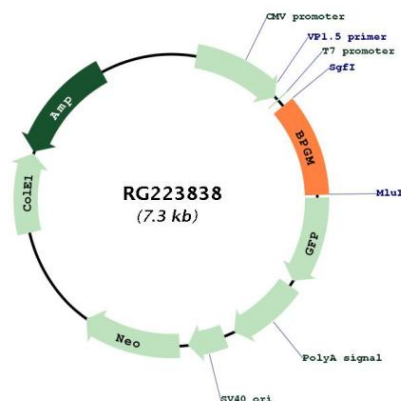
Domains: PGAM

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]

Product images:



Circular map for RG223838