

Product datasheet for **RG236993**

BPGM (NM_001293085) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BPGM (NM_001293085) 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:	>RG236993 representing NM_001293085. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTCCAAGTACAACTTATTATGTTAAGACATGGAGAGGGTGCTTGAATAAGGAGAACCGTTTTTGT
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GGGGCCTTGATCGGTCTCAACAGGGAGCAGATGGCTTTGAATCATGGTGAAGAACAAGTGAGGCTCTGG
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GACCGGAGGTATAAAGTATGCGATGTGCCCTTGGATCAACTGCCACGGTCGGAAAGCTTAAAGGATGTT
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CCTCATCAGTTCCTGGGTGACCAAGAGGCGATCCAAGCAGCCATTAAGAAAGTAGAAGATCAAGGAAAA
GTGAAACAAGCTAAAAAA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG236993
 Blue=ORF Red=Cloning site Green=Tag(s)

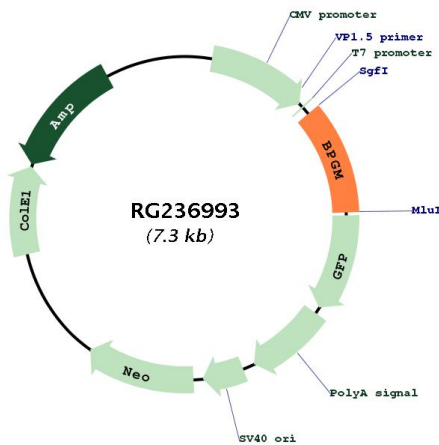
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 ILEELGQEWVPVESSWRLNERHYGALIGLNREQMALNHGEEQVRLWRRSYNVTPPPPIEESHPPYQEIYN
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 INITLPTGVPILLELDENLRAVGP HQFLGDQEA IQAAIKKVEDQGVKQAKK
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYP SGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPE
 SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001293085

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).
RefSeq:	NM_001293085.1 , NP_001280014.1
RefSeq Size:	1925 bp
RefSeq ORF:	780 bp
Locus ID:	669
UniProt ID:	P07738
Cytogenetics:	7q33
Protein Families:	Druggable Genome
Protein Pathways:	Glycolysis / Gluconeogenesis, Metabolic pathways
MW:	30 kDa
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]