

Product datasheet for **RC202105**

BPGM (NM_199186) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: BPGM (NM_199186) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: BPGM
Synonyms: DPGM; ECYT8
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202105 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

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

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC202105 protein sequence
Red=Cloning site Green=Tags(s)

MSKYKLIMLRHGEGAWNKENRFCSWVDQKLNSEGMEEARNCGKQLKALNFEFDLVFTSVLNRSIHTAWLI
 LEELGQEWVPESSWRLNERHYGALIGLNREQMALNHGEEQVRLWRRSYNVTPPP IEE SHPYQEIYNDR
 RYKVC DVPLDQLPRSESLKDVLERLLPYWNERIAPEVLRGKTILISAHGNSRALLKHLGISEDIIINI
 TLPTGVPILLELDENLRAVGP HQFLGDQEA IQAAIKKVEDQGKVKQAKK

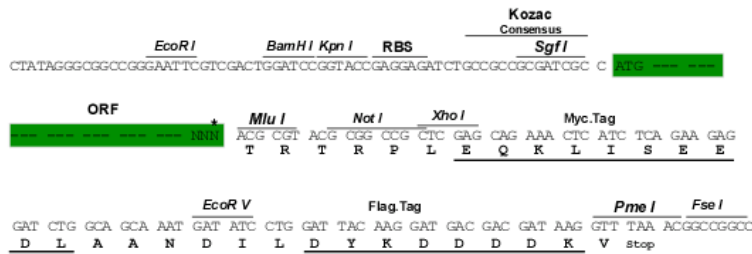
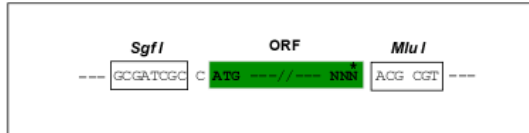
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6305_e12.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_199186

ORF Size: 777 bp

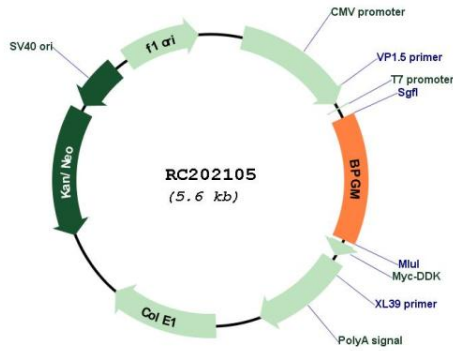
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

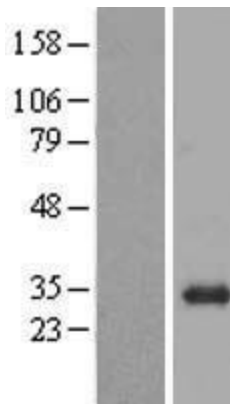
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_199186.2 , NP_954655.1
RefSeq Size:	2121 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]

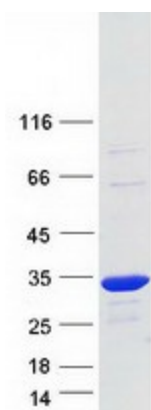
Product images:



Circular map for RC202105



Western blot validation of overexpression lysate (Cat# [LY419780]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC223838] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BPGM protein (Cat# [TP302105]). The protein was produced from HEK293T cells transfected with BPGM cDNA clone (Cat# RC202105) using MegaTran 2.0 (Cat# [TT210002]).