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# Product datasheet for RC214470

## PGP (NM_001042371) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | PGP (NM_001042371) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | PGP |
| **Synonyms:** | AUM; G3PP; PGPase |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |
| **ORF Nucleotide Sequence:** | >RC214470 representing NM_001042371<br>Red=Cloning site Blue=ORF Green=Tags(s)<br><br>TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC<br>GCCGCGATCGCC<br><br>ATGGCGGCGGCGGAGGCCGGTGGCGACGACGCCCGCTGCGTGCGGCTGAGCGCCGAGCGGGCACAGGCGC<br>TGCTGGCCGACGTGGACACGCTGCTGTTCGACTGCGACGGCGTGCTGTGGCGCGGGGAGACCGCCGTGCC<br>TGGCGCGCCCGAGGCCCTGCGGGCGCTGCGAGCCCGCGGCAAGCGCCTGGGCTTCATCACCAACAACAGC<br>AGCAAGACCCGCGCTGCCTACGCCGAGAAGCTGCGGCGCCTGGGCTTCGGCGGCCCCGCGGGGCCCGGCG<br>CCAGCCTGGAGGTCTTCGGCACGGCCTACTGCACCGCGCTCTACCTGCGCCAGCGCCTGGCCGGCGCCCC<br>CGCGCCCAAGGCCTACGTGCTGGGCAGCCCAGCCCTGGCCGCGGAGCTGGAGGCCGTGGGCGTCGCCAGC<br>GTGGGCGTGGGGCCCGAGCCACTGCAGGGCGAGGGTCCCGGCGACTGGCTGCACGCGCCGCTGGAGCCCG<br>ACGTGCGCGCGGTGGTGGTGGGCTTTGACCCGCACTTCAGCTACATGAAGCTCACCAAGGCCCTGCGCTA<br>CCTGCAGCAGCCCGGCTGCCTGCTCGTGGGCACCAACATGGACAACCGGCTTCCGCTTGAGAACGGCCGC<br>TTCATCGCGGGTACCGGGTGTCTGGTCCGAGCCGTGGAGATGGCCGCCCAGCGCCAGGCCGACATCATCG<br>GGAAGCCCAGCCGCTTCATTTTCGACTGCGTGTCCCAGGAATACGGCATCAACCCCGAGCGCACCGTCAT<br>GGTGGGAGACCGCCTGGACACAGACATCCTCCTAGGCGCCACCTGTGGCCTGAAGACCATCCTGACCCTC<br>ACCGGAGTCTCCACTCTAGGGGATGTGAAGAATAATCAGGAAAGTGACTGCGTGTCTAAGAAGAAAATGG<br>TCCCTGACTTCTATGTTGACAGCATAGCCGACCTTTTGCCTGCCCTTCAAGGT<br><br>ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT<br>ACAAGGATGACGACGATAAGGTTTAA |



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**Protein Sequence:**

>RC214470 representing NM_001042371
Red=Cloning site Green=Tags(s)

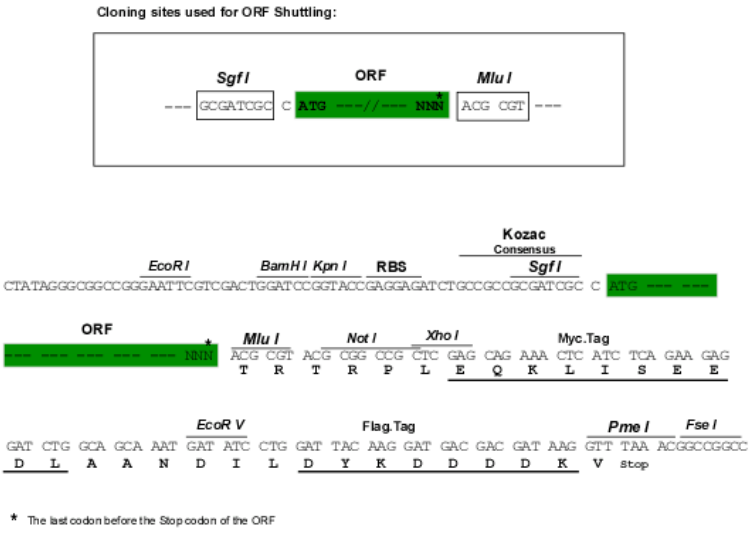
MAAAEAGGDDARCVRLSAERAQALLADVDTLLFDCDGVLWRGETAVPGAPEALRALRARGKRLGFITNNS
SKTRAAYAEKLRRLGFGGPAGPGASLEVFGTAYCTALYLRQRLAGAPAPKAYVLGSPALAAELEAVGVAS
VGVGPEPLQGEGPGDWLHAPLEPDVRAVVVGFDPHFSYMKLTKALRYLQQPGCLLVGTNMDNRLPLENGR
FIAGTGCLVRAVEMAAQRQADIIGKPSRFIFDCVSQEYGINPERTVMVGDRLDTDILLGATCGLKTILTL
TGVSTLGDVKNNQESDCVSKKKMVPDFYVDSIADLLPALQG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** https://cdn.origene.com/chromatograms/mk8030_h04.zip

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_001042371

**ORF Size:** 963 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_001042371.3

**RefSeq Size:** 1041 bp

**RefSeq ORF:** 966 bp

**Locus ID:** 283871

**UniProt ID:** A6NDG6

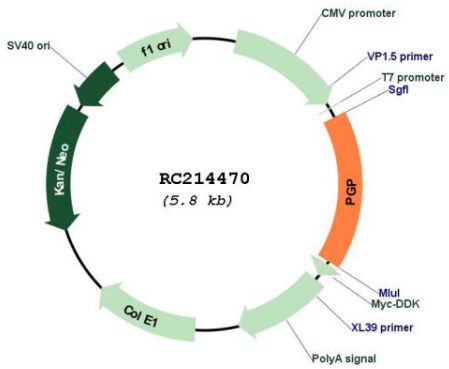
**Cytogenetics:** 16p13.3

**Protein Pathways:** Glyoxylate and dicarboxylate metabolism, Metabolic pathways

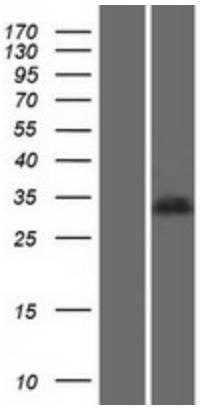
**MW:** 33.8 kDa

**Gene Summary:** Glycerol-3-phosphate phosphatase hydrolyzing glycerol-3-phosphate into glycerol. Thereby, regulates the cellular levels of glycerol-3-phosphate a metabolic intermediate of glucose, lipid and energy metabolism. Was also shown to have a 2-phosphoglycolate phosphatase activity and a tyrosine-protein phosphatase activity. However, their physiological relevance is unclear (PubMed:26755581). In vitro, has also a phosphatase activity toward ADP, ATP, GDP and GTP (By similarity).[UniProtKB/Swiss-Prot Function]

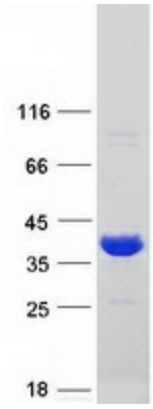
## Product images:




Circular map for RC214470




Western blot validation of overexpression lysate (Cat# [LY420860]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214470 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).




Coomassie blue staining of purified PGP protein (Cat# [TP314470]). The protein was produced from HEK293T cells transfected with PGP cDNA clone (Cat# RC214470) using MegaTran 2.0 (Cat# [TT210002]).