

Product datasheet for **RG211662**

Folylpolyglutamate synthase (FPGS) (NM_001018078) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Folylpolyglutamate synthase (FPGS) (NM_001018078) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Folylpolyglutamate synthase
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG211662 representing NM_001018078
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCAATACCCTGCAGACCAATGCCGGTACCTGGAGCAGGTGAAGCGCCAGCGGGGTGACCCTCAGA
 CACAGTTGGAAGCCATGGAAGTGTACCTGGCACGGAGTGGCTGCAGGTGGAGGACTTGGACCGGCTGAA
 CATCATCCACGCTCACTGGGACGAAGGGGAAGGGTCCACCTGTGCCTTACGGAATGTATCTCCGAAGC
 TATGGCCTGAAGACGGGATTCTTTAGCTCTCCCCACCTGGTGCAGGTTCCGGAGCGGATCCGCATCAATG
 GGCAGCCCATCAGTCTGAGCTCTTACCAAGTACTTCTGGCGCCTTACCACCGGCTGGAGGAGACCAA
 GGATGGCAGTGTGTCTCCATGCCCCCTACTTCCGCTTCTGACACTCATGGCCTTCCACGTCTTCTCTC
 CAAGAGAAGGTGGACCTGGCAGTGGTGGAGGTGGGCATTTGGCGGGCTTATGACTGCACCAACATCATCA
 GGAAGCCTGTGGTGTGGGAGTCTCTCTCTTGGCATCGACCACACCAGCCTCTGGGGGATACGGTGGAA
 GAAGATCGCATGGCAGAAAGGGGCATCTTTAAGCAAGGTGTCCCTGCCTCACTGTGCTCCAACCTGAA
 GTCCCCCTGGCAGTGTGAGGGACCGAGCCAGCAGATCTCATGTCTCTATACTGTGTCCGATGCTGG
 AGGCCCTCGAGGAAGGGGGCCCGCTGACCCCTGGGCCTGGAGGGGGAGCACCAGCGGTCCAACGCCGC
 CTTGGCCTTGAGCTGGCCACTGCTGGCTGCAGCGCAGGACCGCCATGGTGTGGGGAGCCAAAGGCA
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 CGGTGCGCACACCGCCAGCAGCGCGCAGGCTGCGTGCCTGGTCCGCCAGGCGCTGCAGGGCCGCGAG
 AGGCCGAGCGGTGGCCCCGAGGTTGAGTCTTGTCTTCAATGCTACCGGGGACCGGACCCGGCGGCC
 TGCTGAAGTGTGTCAGCCCTGCCAGTTTGACTATGCCGTCTTTCGCCCTAACCTGACAGAGGTGTATC
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 CAGCAGCACTGGAACACCTGGACGAAGAGCAGGCCAGCCGGACCTCTGGAGTGCACCCAGCCAGAGC
 CCGGTGGTCCGCATCCCTGCTTCTGGCGCCCCACCCACCCACACTGCAGTGCAGCTCCCTCGTCTT
 CAGCTGCATTTACATGCCTTGAATGGATCAGCCAAGGCCGAGACCCCATCTTCCAGCCACCTAGTCCC
 CCAAAGGGCCTCCTACCCACCCTGTGGCTCACAGTGGGGCCAGCATACTCCGTGAGGCTGCTGCCATCC
 ATGTGCTAGTCACTGGCAGCCTGCACCTGGTGGTGGTGTCTGAAGTGTGGAGCCCGCACTGTCCCA
 G

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG211662 representing NM_001018078
 Red=Cloning site Green=Tags(s)

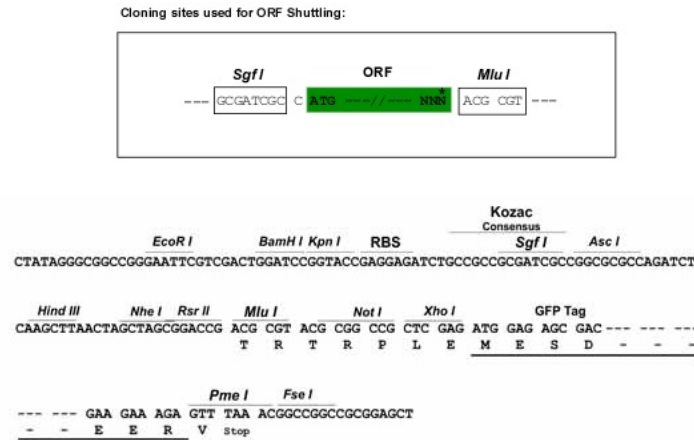
MLNLTQTNAGYLEQVKRQRGDPQTQLEAMELYLARSLQVEDLRLNIIHVTGKTKGKSTCAFTECILRS
 YGLKTGFFSSPHLVQVRERIRINGQPISELFKTFWRLYHRLEETKDGSCVSMPPYFRFLTLMAFHVFL
 QEKVDLAVVEVGIGGAYDCTNIIKRPVVCVSSSLGIDHTSLLGDTVEKIAWQKGGIFKQGVPAFTVLQPE
 GPLAVLRDRAQQISCPYLCPMLEALEEGPPLTLGLEGEHQRSNAALALQLAHCWLQRDRHGAGEPKA
 SRPGLLWQLPLAPVFQPTSHMRLGLRNTEWPGRTQVLRGGLTWYLDGAHTASSAQACVWRFRQALQGRE
 RPSGGPEVRVLLFNATGDRDPAALLKLLQPCQFDYAVFCPNLTVSSTGNADQQNFVTLLDQVLLRCLH
 QQHWNHLDEEQASPDLSAPSPEPGGSASLLAPHPPHTCSASSLVFSCISHALQWISQGRDPIFQPPSP
 PKGLLTHPVAHSGASILREAAAIHVLVTGSLHLVGGVLLKLEPALSQ

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001018078

ORF Size: 1611 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

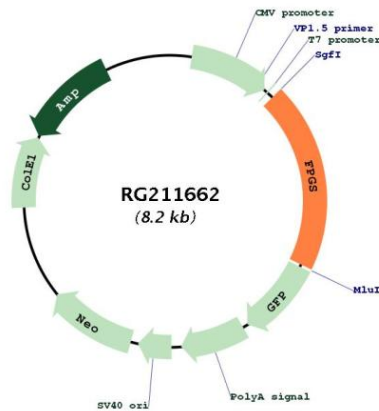
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001018078.2
RefSeq Size:	2475 bp
RefSeq ORF:	1614 bp
Locus ID:	2356
UniProt ID:	Q05932
Cytogenetics:	9q34.11
Protein Pathways:	Folate biosynthesis, Metabolic pathways
Gene Summary:	This gene encodes the folylpolyglutamate synthetase enzyme. This enzyme has a central role in establishing and maintaining both cytosolic and mitochondrial folylpolyglutamate concentrations and, therefore, is essential for folate homeostasis and the survival of proliferating cells. This enzyme catalyzes the ATP-dependent addition of glutamate moieties to folate and folate derivatives. Alternative splicing results in transcript variants encoding different isoforms. [provided by RefSeq, Jan 2014]

Product images:



Circular map for RG211662