

## Product datasheet for **SC302165**

### Folypolyglutamate synthase (FPGS) (NM\_001018078) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Folypolyglutamate synthase (FPGS) (NM_001018078) Human Untagged Clone
Tag:	Tag Free
Symbol:	Folypolyglutamate synthase
Mammalian Cell Selection:	Neomycin
Vector:	<u>PCMV6-Neo</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_001018078, the custom clone sequence may differ by one or more nucleotides

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ATGCTCAATACCCCTGCAGACCAATGCCGGCTACCTGGAGCAGGTGAAGCGCCAGCGGGT
GACCCTCAGACACAGTTGGAAGCCATGGAAGTGTACCTGGCACGGAGTGGGCTGCAGGTG
GAGGACTTGGACCGGCTGAACATCATCCACGCTACTGGGACGAAGGGGAAGGGCTCCACC
TGTGCCTTACGGAATGTATCCTCCGAAGCTATGGCCTGAAGACGGGATTCTTTAGTCTC
CCCCACCTGGTGCAGGTTCCGGGAGCGGATCCGCATCAATGGGCAGCCCATCAGTCTGAG
CTCTTACCAAGTACTTCTGGCGCCTCTACCACCGGCTGGAGGAGACCAAGGATGGCAGC
TGTGTCTCCATGCCCCCTACTTCCGCTTCTGACACTCATGGCCTTCCACGTCTTCTC
CAAGAGAAGTGGACCTGGCAGTGGTGGAGGTGGGCATTGGCGGGGCTTATGACTGCACC
AACATCATCAGGAAGCCTGTGGTGTGCGGAGTCTCCTCTTTGGCATCGACCACACCAGC
CTCCTGGGGGATACGGTGGAGAAGATCGCATGGCAGAAAGGGGGCATCTTTAAGCAAGGT
GTCCTGCCTTCACTGTGCTCAACCTGAAGTCCCCTGGCAGTGTGAGGGACCGAGCC
CAGCAGATCTCATGTCTTATACCTGTGTCCGATGCTGGAGGCCCTCGAGGAAGGGGG
CCGCCGCTGACCCTGGGCTGGAGGGGAGCACCAGCGGTCCAACGCCGCTTGGCCTTG
CAGCTGGCCCACTGCTGGCTGCAGCGGCAGGACCGCCATGGTGTGGGGAGCCAAAGGCA
TCCAGGCCAGGGCTCCTGTGGCAGCTGCCCTGGCACCTGTGTTCCAGCCACATCCCAC
ATGCGGCTCGGGCTTCGGAACACGGAGTGGCCGGGCCGGACGCAGGTGCTGCGGCGCGGG
CCCCTCACCTGGTACCTGGACGGTGCACACACCGCCAGCAGCGCGCAGGCCTGCGTGCGC
TGGTTCGCCAGGCGCTGCAGGGCCGCGAGAGGCCGAGCGGTGGCCCCGAGGTTTCGAGTC
TTGCTCTTCAATGCTACCGGGGACCGGGACCCGGCGCCCTGTGAAGTGTGTCAGCCC
TGCCAGTTTGACTATGCCGTCTTCTGCCCTAACCTGACAGAGGTGTCATCCACAGGCAAC
GCAGACCAACAGAACTTACAGTGACACTGGACCAGGTCCTGCTCCGCTGCCTGGAACAC
CAGCAGCACTGGAACCACTGGACGAAGAGCAGGCCAGCCGACCTCTGGAGTGCCCCC
AGCCCAGAGCCCGTGGGTCCGCATCCCTGCTTCTGGCGCCCCACCCACCCACACCTGC
AGTGCCAGCTCCCTCGTCTTACGCTGCATTTACATGCCTTGCAATGGATCAGCCAAGGC
CGAGACCCCATCTTCCAGCCACCTAGTCCCCAAAGGGCCTCCTACCCACCCTGTGGCT
CACAGTGGGGCCAGCATACTCCGTGAGGCTGCTGCCATCCATGTGCTAGTCACTGGCAGC
CTGCACCTGGTGGTGGTGTCTGAAGCTGCTGGAGCCCGCACTGTCCCAGTAG
    
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**Restriction Sites:** Please inquire

**ACCN:** NM\_001018078

**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](mailto: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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001018078.1</a></u> , <u><a href="#">NP_001018088.1</a></u>
<b>RefSeq Size:</b>	2475 bp
<b>RefSeq ORF:</b>	1614 bp
<b>Locus ID:</b>	2356
<b>UniProt ID:</b>	<u><a href="#">Q05932</a></u>
<b>Cytogenetics:</b>	9q34.11
<b>Protein Pathways:</b>	Folate biosynthesis, Metabolic pathways
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (2) uses an alternate exon for its 5' UTR and uses a downstream start codon, compared to variant 1. It encodes isoform b which is a cytosolic protein and has a shorter N-terminus, compared to isoform a.</p>