

Product datasheet for **MG218569**

Fpgs (NM_010236) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Fpgs (NM_010236) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Fpgs |
| Synonyms: | AA408187 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>MG218569 representing NM_010236
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCGTGGGCGCGGAGCCGACTGTGCTCGACTCTGTCCCTGGCAGCTGTTTCTGCGCGTGGTGCAACGA
 CGGAGGGCGCGCGCGGGGGATGAGCGCTGGCCAGCGCCACAGGAGCCGGCATGGAGTATCAGGA
 TGCTGTGCGCACGCTCAACACCCTGCAAACCAATGCCAGCTACCTGGAGCAGGTAAGCGCCAACGGAGT
 GACCCCGAGGCGCAGCTGGAGGCTATGGAGATGTACCTGGCACGGAGTGGACTGCAGGTGGAGGACTTGA
 ACCGGCTAAACATTATTCATGTCACTGGGACCAAGGGAAGGGCTCCACCTGTGCCTTACCAGACGGAT
 CCTGCGGAATTACGGCTGAAGACCGGCTCTTTAGCTCTCTCACATGGTGCAGGTGCGGGAGCGGATT
 CGAATCAACGGGAAACCAATCAGCCCGAGCTCTTACCAAGCACTTCTGGTGCCTCTATAACCAGCTGG
 AGGAGTCAAGGACGACAGCCATGTCTCCATGCCCTTACTTCCGCTTCTCACACTCATGGCCTTCCA
 TGCTTCTCCAAGAGAAGGTGGACCTGGCAGTGGTGGAGGTGGGCATTGGCGGGCTTTGACTGCACC
 AACATCATCAGAAAGCCAGTGGTGTGTGGAGTCTCTCTTGGCATTGACCACACCAGTCTACTAGGAG
 ATACAGTGGAGAAAATAGCATGGCAGAAAGGGGCATCTTAAAGCCTGGTGTCCCTGCCTTCACTGTGGT
 GCAGCCAGAAGTCCCCTGGCTGTGCTGAGGGATCGAGCCAGCAGATTGGATGCCCGTTGTACCTGTGT
 CCGCCATTGGAAGCCCTGGAGGAGGTTGGACTGCCATTGAGCCTGGGTCTGGAGGGAGCACACCAGCGGT
 CTAATGCTGCCTTGGCCTTGAGCTGGCCACTGTTGGCTGGAGCGGCAGGACCACCAAGACATCCAGGA
 GCTGAAGTATCCAGGCCAAGCATAACGGTGGCAGCTGCCCTGGCACCTGTGTTCCGCCCTACCCCTCAC
 ATGAGGCGTGGGCTTCGGGACACAGTGTGGCCTGGCCGGACACAGATACTCCAGCGGGACCCCTTACCT
 GGTACCTGGATGGCGCCATACCACAGCAGTGTGCAGGCTGTGTGCAGTGTGACCGGACCTTATGGA
 GCGCAGCAAACGCACCGATGGAGGGTCCGAAGTACACATCTTGCTCTTCAACTCTACTGGTGACAGGGAC
 TCTGCTGCCCTGCTGAAGCTGCTGCAGCCCTGCCAGTTTGACTACGCTGTCTTCTGCCCAACGTGACAG
 AGGTTTTCATCCATAGGAAATGCAGACCAGCAGAACTTCACTGTGACTCTGGACCAGGTGCTGCTCCGCTG
 CCTCCAACACCAGCAGCATTGGAACGGCTGGCTGAGAAACAGGCCAGCTCCAACCTCTGGAGCAGCTGC
 GGCCAGACCCTGCTGGCCAGGCTCCCTGCTGCTGGCCCGCACCCACCTCAGCCTACTAGGACGAGCT
 CCCTCGTTTTAGCTGCATCTCCACGCCTTGTGTGGATCAGCCAAGGCCGGGATCCCCTTTACAGCC
 CCAGAGCCTTCAAGGAATCTTCTCAACCACCCACAGCCAACAGCGGGCCAGCATTCTCCGTGAGGCT
 GCTGCCATCCATGTACTGTTACAGGAAGCTGCACCTGGTGGCGGGTCTGAAACTGCTGGATCCCT
 CTATGTCCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG218569 representing NM_010236
 Red=Cloning site Green=Tags(s)

MSWARSRLCSTLSLAAVSARGATTEGAARRGMSAWPAPQEPGMEYQDAVRTLNTLQTNASYLEQVKRQRS
 DPQAQLEAMEMYLARSGLQVEDLNRLNIHVTGKKGSTCAFTERILRNYGLKTGFFSSPHMVQVRERI
 RINGKPISELF TKHFWCLYNQLEEFKDDSHVSMPSYFRFLTLMAFHVFLQEKVDLAVVEVGIGGAFDCT
 NIIRKPVVCGVSSLGIDHTSLLGDTVEKIAWQGGIFKPGVPAFTVVQPEGPLAVLRDRAQQIGCPLYLC
 PPLEALEEVGLPLSLGLEGAHQRSNAALALQLAHCWLERQDHQDIQELKVSRRPSIRWQLPLAPVFRPTPH
 MRRGLRDTVWPGRQTILQRGPLTWYLDGAHTTSSVQACVHWYRQSLERSKRTDGGSEVHILLFNSTGDRD
 SAALLKLLQPCQFDYAVFCPNVTEVSSIGNADQNFVTLDQVLLRCLQHQQHWNGLAEQASSNLWSSC
 GPDPAAGSLLLAPHPPQPTRTSSLVFSCTISHALLWISQGRDPIFQPQSLPRNLLNHPTANSGASILREA
 AAIHVLVTGSLHLVGGVLKLLDPSMSQ

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_010236

ORF Size: 1761 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_010236.2](#), [NP_034366.2](#)

RefSeq Size: 2265 bp

RefSeq ORF: 1764 bp

Locus ID: 14287

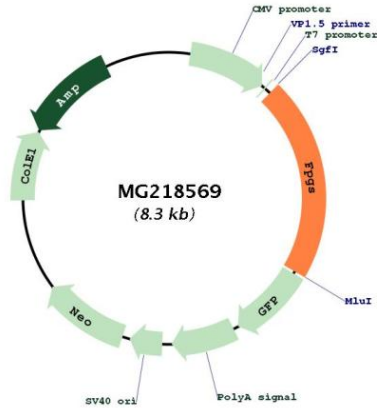
UniProt ID: [P48760](#)

Cytogenetics: 2 22.09 cM

Gene Summary:

Catalyzes conversion of folates to polyglutamate derivatives allowing concentration of folate compounds in the cell and the intracellular retention of these cofactors, which are important substrates for most of the folate-dependent enzymes that are involved in one-carbon transfer reactions involved in purine, pyrimidine and amino acid synthesis. Dihydrofolate, tetrahydrofolate, 5,10-methylenetetrahydrofolate, 10-formyltetrahydrofolate and 5-formyltetrahydrofolate are the best substrates. Folic acid and 5-methyltetrahydrofolate can also act as substrates.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG218569