

Product datasheet for **MR218569**

Fpgs (NM_010236) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fpgs (NM_010236) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fpgs
Synonyms:	AA408187
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR218569 representing NM_010236
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGTGGGCGCGGAGCCGACTGTGCTCGACTCTGTCCCTGGCAGCTGTTTCTGCGCGTGGTGCAACGA
 CGGAGGGCGCGCGCGGGGGATGAGCGCTGGCCAGCGCCACAGGAGCCGGCATGGAGTATCAGGA
 TGCTGTGCGCACGCTCAACACCCTGCAAACCAATGCCAGCTACCTGGAGCAGGTAAGCGCCAACGGAGT
 GACCCCGAGGCGCAGCTGGAGGCTATGGAGATGTACCTGGCACGGAGTGGACTGCAGGTGGAGGACTTGA
 ACCGGCTAAACATTATTCATGTCCTACTGGGACCAAGGGAAGGGCTCCACCTGTGCCTTACCGAACGGAT
 CCTGCGGAATTACGGCTGAAGACCGGCTCTTTAGCTCTCTCACATGGTGCAGGTGCGGGAGCGGATT
 CGAATCAACGGGAAACCAATCAGCCCGAGCTCTTACCAAGCACTTCTGGTGCCTCTATAACCAGCTGG
 AGGAGTCAAGGACGACAGCCATGTCTCCATGCCCTTACTTCCGCTTCTCACACTCATGGCCTTCCA
 TGTCTTCTCCAAGAGAAGGTGGACCTGGCAGTGGTGGAGGTGGGCATTGGCGGGCTTTGACTGCACC
 AACATCATCAGAAAGCCAGTGGTGTGTGGAGTCTCCTCTCTTGGCATTGACCACACCAGTCTACTAGGAG
 ATACAGTGGAGAAAATAGCATGGCAGAAAGGGGCATCTTTAAGCCTGGTGTCCCTGCCTTCACTGTGGT
 GCAGCCAGAAGTCCCCTGGCTGTGCTGAGGGATCGAGCCAGCAGATTGGATGCCCGTTGTACCTGTGT
 CCGCCATTGGAAGCCCTGGAGGAGTGGACTGCCATTGAGCCTGGGCTGGAGGGAGCACACCAGCGGT
 CTAATGCTGCCTTGGCCTTGAGCTGGCCACTGTTGGCTGGAGCGGCAGGACCACCAAGACATCCAGGA
 GCTGAAGGTATCCAGGCCAAGCATAACGGTGGCAGCTGCCCTGGCACCTGTGTTCCGCCCTACCCCTCAC
 ATGAGGCGTGGCTTTCGGACACAGTGTGGCCTGGCCGGACACAGATACTCCAGCGGGGACCCCTTACCT
 GGTACCTGGATGGCGCCATACCACAGCAGTGTGCAGGCTGTGTGCAGTGTGTCAGTACCAGTCACTTGG
 GCGCAGCAACCGCACCGATGGAGGGTCCGAAGTACACATCTTGCTCTTCAACTCTACTGGTGACAGGGAC
 TCTGCTGCCCTGCTGAAGCTGCTGCAGCCCTGCCAGTTTGACTACGCTGTCTTCTGCCCAACGTGACAG
 AGGTTTTCATCCATAGGAAATGCAGACCAGCAGAACTTCACTGTGACTCTGGACCAGGTGCTGCTCCGCTG
 CCTCCAACACCAGCAGCATTGGAACGGCTGGCTGAGAAACAGGCCAGCTCCAACCTCTGGAGCAGCTGC
 GGCCAGACCCTGCTGGCCAGGCTCCCTGCTGCTGGCCCGCACCCACCTCAGCCTACTAGGACGAGCT
 CCCTCGTTTTAGCTGCATCTCCACGCCTTGTGTGGATCAGCCAAGGCCGGGATCCCCTTTTACGCC
 CCAGAGCCTTCCAAGGAATCTTCTCAACCACCCACAGCCAACAGCGGGCCAGCATTCTCCGTGAGGCT
 GCTGCCATCCATGTACTGTTACAGGAAGCTGCACCTGGTGGCGGGTCTGAAACTGCTGGATCCCT
 CTATGTCCAG

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR218569 representing NM_010236
 Red=Cloning site Green=Tags(s)

MSWARSRLCSTLSLAAVSARGATTEGAARRGMSAWPAPQEPGMEYQDAVRTLNLTQTNASYLEQVKRQRS
 DPQAQLEAMEMYLARSGLQVEDLNRLNIHVHTGKKGSTCAFTERILRNYGLKTGFFSSPHMVQVRERI
 RINGKPI SPELFTKHFWCLYNQLEEFKDDSHVSMPSYFRFLTLMFAHFVFLQEKVDLAVVEVGIGGAFDCT
 NIIRKPVVCGVSSLGIDHTSLLGDTVEKIAWQKGGIFKPGVPAFTVVQPEGPLAVLRDRAQQIGCPLYLC
 PPLEALEEVGLPLSLGLEGAHQRSNAALALQLAHCWLERQDHQDIQELKVSRSIRWQLPLAPVFRPTPH
 MRRGLRDTVWPGRTQILQRGPLTWYLDGAHTTSSVQACVHWYRQSLERSKRTDGGSEVHILLFNSTGDRD
 SAALLKLLQPCQFDYAVFCPNVTEVSSIGNADQNFVTLDQVLLRCLQHQQHWNGLAEQASSNLWSSC
 GPDPAAGSLLLAPHPPQPTRTSSLVFSCISHALLWISQGRDPFIFQPQSLPRNLLNHPTANS GASILREA
 AAIHVLTGSLHLVGGVLLKLLDPSMSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

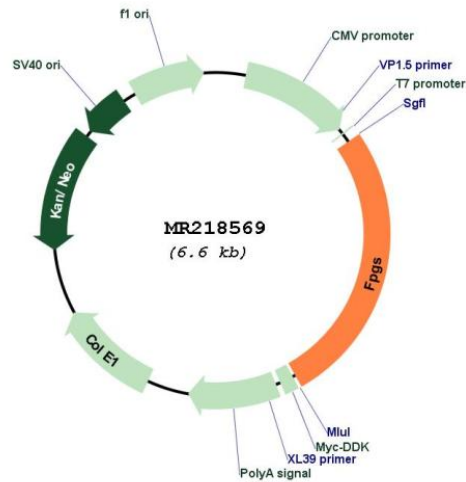
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



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:	<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.
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
MW:	65.4 kDa
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]