

## Product datasheet for **RG200519**

### GFPT2 (NM\_005110) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GFPT2 (NM_005110) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GFPT2
Synonyms:	GFAT; GFAT 2; GFAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG200519 representing NM\_005110  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTGCGGAATCTTTGCCTACATGAACTACAGAGTCCCCGGACGAGGAAGGAGATCTTCGAAACCCTCA  
 TCAAGGGCTGCAGCGGCTGGAGTACAGAGGCTACGACTCGGCAGGTGTGGCGATCGATGGGAATAATCA  
 CGAAGTCAAAGAAAGACACATTCAGCTGGTCAAGAAAAGGGGAAAGTCAAGGCTCTCGATGAAGAAGT  
 TACAAACAAGACAGCATGGACTTAAAAGTGGAGTTTGGAGACACTTCGGCATTGCCACACGCGTGGG  
 CCACCCACGGGGTCCCCAGTGTGTCAACAGCCACCTCAGCGCTCAGACAAAGGCAACGAATTTGTTGT  
 CATCCACAATGGGATCATCACAATTACAAGATCTGAGGAAATTTCTGGAAAGCAAAGGCTACGAGTTT  
 GAGTCAGAAACAGATACAGAGACCATCGCCAAGCTGATTAATATGTGTTGACAAACAGAGAAACTGAGG  
 ACATTACGTTTTCAACGTTGGTCGAGAGAGTCATTGAGCAGTTGGAAGGTGCATTGCGCGTGGTTTTCAA  
 GAGTGTCCACTACCCAGGAGAAGCCGTTGCCACACGGAGAGGCAGCCCCCTGCTCATCGGAGTCCGGAGC  
 AAATACAAGCTCTCCACAGAACAGATCCCTATCTTATACAGGACGTGCACTCTGGAGAATGTGAAGAATA  
 TCTGTAAGACACGGATGAAGAGGCTGGACAGCTCCGCCTGCCTGCATGCTGTGGGCGACAAGGCCGTGGA  
 ATTCTTCTTGTCTGTGATGCAAGCGCTATCATAGAGCACACCAACCGGGTTCATCTTCTGGAGGACGAT  
 GACATCGCCGAGTGGCTGATGGGAACTCTCCATTCACCGGGTCAAGCGCTCGGCCAGTGTGACCCAT  
 CTCGAGCCATCCAGACCTTGAGATGGAAGTGCAGCAATCATGAAAGGTAACCTCAGTGCCTTTATGCA  
 GAAGGAGATCTTGAACAGCCAGAATCAGTTTTCAATACTATGAGAGGTGGGTGAATTTTGAACCAAC  
 ACAGTGTCTCTGGGTGGCTTGAAGGACCACTTGAAGGAGATTCGACGATGCCGACGGCTCATCGTATTG  
 GCTGTGGAACAGCTACCACGCTGCCGTGGTACGCGGCAAGTTTTGGAGGAAGTACTGAGCTTCTCTGT  
 GATGGTTGAACCTGCTAGTGATTTTCTGGACAGGAACACACCTGTGTTTCAGGGATGACGTTTCTTTTC  
 ATCAGCCAGTCAGGCGAGACCGCGGACACCCTCCTGGCGCTGCGCTACTGTAAGGACCGCGGCGCTCTCA  
 CCGTGGGCGTCACCAACACCGTGGGCGAGCTCCATCTCTCGCGAGACCGACTGCGGCGTCCACATCAACGC  
 AGGGCCGAGGTCGGCGTGGCCAGCACCAAGGCTTATACCAGTCAGTTCATCTCTCTGGTGTGTTGGT  
 TTGATGATGTCTGAAGACCGAATTTCACTACAAAACAGGAGGCAAGAGATCATCCGTGGCTTGGATCTT  
 TACCTGAGCTGATCAAGGAAGTGTCTCTGGAGGAGAAGATCCACGACTTGGCCCTGGAGCTCTACAC  
 GCAGAGATCGCTGCTGGTGTGTTGGGCGGGCTACAACATGCCACCTGCCTGGAAGGAGCCCTGAAAATT  
 AAAGAGATAACCTACATGCACTCAGAAGGCATCCTGGCTGGGAGCTGAAGCACGGGCCCTGGCACTGA  
 TTGACAAGCAGATGCCCGTCATCATGGTATTATGAAGGATCCTTGCTTCGCCAAATGCCAGAACGCCCT  
 GCAGCAAGTCACGGCCCGCCAGGTCGCCCCATTATACTGTGCTCCAAGGACGATGACTGAAAGTTCCAAG  
 TTTGCGTATAAGACAATCGAGCTGCCCCACACTGTGGACTGCCTCCAGGGCATCCTGAGCGTGATCCCGC  
 TGCAGTGTCTCCTCCACCTGGCTGTTCTCCGAGGATATGACGTTGACTTCCCAGAAATCTGGCCAA  
 GTCTGTAAGTGTGGAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG200519 representing NM\_005110  
 Red=Cloning site Green=Tags(s)

MCGIFAYMNYRVPRTKKEIFETLIKGLQRLEYRGYDSAGVAIDGNNHEVKERHIQLVKKRGKVKALDEEL  
 YKQDSMDLKVEFETHFGIAHTRWATHGVPSAVNSHPQRSKGNFVVIHNGIITNYKDLRKFLSKGYEF  
 ESETDTETIAKLIKVFNDRETDITFSTLVERVIQQLEGAFALVFKSVHYPGEAVATRRGSPLLIGVRS  
 KYKLSTEQIPIILYRTCTLENVKNICKTRMKRLDSSACLHAGVDKAVEFFASDASAIIEHTNRVIFLEDD  
 DIAAVADGKLSIHRVKRSASDDPSRAIQTLQEMELQQIMKGNFSAFMQKEIFEQPESVFNTMRGRVNFETN  
 TVLLGGLKDHLKEIRRCRRLIVIGCGTSYHAAVATRQVLEELTELPVMVELASDFLDRNTPVFRDDVCF  
 ISQSGETADTLLALRYCKDRGALTVGVTNTVGSSI SRETDCGVHINAGPEVGVASTKAYTSQFISLVMFG  
 LMMSEDRI SLQNRQEIIRGLRSLPEL I KEVLSLEEKI HDLAL ELYTQRSL VMGRGNYATCLEGALKI  
 KEITYMHSEGILAGELKHG LPLALIDKQMPVIMVIMKDPCKFAKQNALQQV TARQGRPIILCSKDDTESSK  
 FAYKTIELPHTVDCLQGILSVIPLQLLSFHLAVLRGYDVDFPRNLAKSVTVE

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005110

**ORF Size:** 2046 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\\_005110.1](#), [NP\\_005101.1](#)

**RefSeq Size:** 3014 bp

**RefSeq ORF:** 2049 bp

**Locus ID:** 9945

**UniProt ID:** [O94808](#)

**Cytogenetics:** 5q35.3

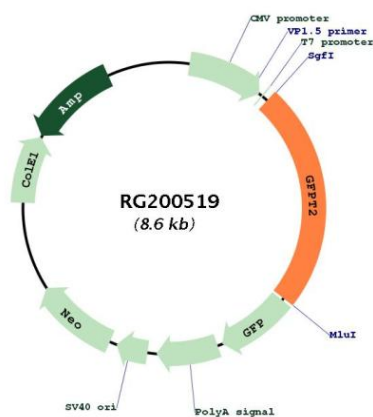
**Domains:** GATase\_2, SIS

**Protein Families:** Protease

**Protein Pathways:** Alanine, aspartate and glutamate metabolism, Amino sugar and nucleotide sugar metabolism, Metabolic pathways

**Gene Summary:** Controls the flux of glucose into the hexosamine pathway. Most likely involved in regulating the availability of precursors for N- and O-linked glycosylation of proteins.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RG200519