

## Product datasheet for **RC200519**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GFPT2 (NM_005110) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GFPT2
Synonyms:	GFAT; GFAT 2; GFAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC200519 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTGCGGAATCTTTCCTACATGAACTACAGAGTCCCCGGACGAGGAAGGAGATCTTCGAAACCCTCA  
 TCAAGGGCTGCAGCGGCTGGAGTACAGAGGCTACGACTCGGCAGGTGTGGCGATCGATGGGAATAATCA  
 CGAAGTCAAAGAAAGACACATTCAGCTGGTCAAGAAAAGGGGAAAGTCAAGGCTCTCGATGAAGAAGT  
 TACAAACAAGACAGCATGGACTTAAAAGTGGAGTTTGGAGACACTTCGGCATTGCCACACGCGTGGG  
 CCACCCACGGGGTCCCCAGTGTGTCAACAGCCACCTCAGCGCTCAGACAAAGGCAACGAATTTGTTGT  
 CATCCACAATGGGATCATCACAATTACAAGATCTGAGGAAATTTCTGGAAAGCAAAGGCTACGAGTTT  
 GAGTCAGAAACAGATACAGAGACCATCGCCAAGCTGATTAATATGTGTTGACAAACAGAGAAACTGAGG  
 ACATTACGTTTTCAACGTTGGTCGAGAGAGTCATTAGCAGTTGGAAGGTGCATTGCGCGTGGTTTTCAA  
 GAGTGTCCACTACCCAGGAGAAGCCGTTGCCACACGGAGAGGCAGCCCCCTGCTCATCGGAGTCCGAGC  
 AAATACAAGCTCTCCACAGAACAGATCCCTATCTTATACAGGACGTGCACTCTGGAGAATGTGAAGAATA  
 TCTGTAAGACACGGATGAAGAGGCTGGACAGCTCCGCCTGCCTGCATGCTGTGGGCGACAAGGCCGTGGA  
 ATCTTCTTTGCTTCTGATGCAAGCGCTATCATAGAGCACACCAACCGGGTTCATCTTCTGGAGGACGAT  
 GACATCGCCGAGTGGCTGATGGGAACTCTCCATTCACCGGGTCAAGCGCTCGGCCAGTGCATGACCCAT  
 CTCGAGCCATCCAGACCTTGAGATGGAAGTGCAGCAATCATGAAAGGTAACCTCAGTGCCTTTATGCA  
 GAAGGAGATCTTGAACAGCCAGAATCAGTTTTCAATACTATGAGAGGTGGGTGAATTTTGAACCAAC  
 ACAGTGTCTCTGGGTGGCTTGAAGGACCACTTGAAGGAGATTCGACGATGCCAGCGGCTCATCGTATTG  
 GCTGTGGAACCACTACCACGCTGCCGTGGCTACGCGGCAAGTTTTGGAGGAAGTACTGAGCTTCTCTGT  
 GATGGTTGAACCTGCTAGTGATTTTCTGGACAGGAACACACCTGTGTTGAGGGATGACGTTTCTTTTTC  
 ATCAGCCAGTCAGGCGAGACCGCGGACACCTCCTGGCGCTGCGCTACTGTAAGGACCGCGGCGCTCTCA  
 CCGTGGGCGTCACCAACACCGTGGGCGAGCTCCATCTCTCGCGAGACCGACTGCGGCGTCCACATCAACGC  
 AGGGCCGAGGTCGGCGTGGCCAGCACCAAGGCTTATACCAGTCAGTTCATCTCTCTGGTGTGTTGGT  
 TTGATGATGTCTGAAGACCGAATTTCACTACAAAACAGGAGGCAAGAGATCATCCGTGGCTTGGATCTT  
 TACCTGAGCTGATCAAGGAAGTGTCTCTGGAGGAGAAGATCCACGACTTGGCCCTGGAGCTCTACAC  
 GCAGAGATCGCTGCTGGTGTGGGGCGGGCTACAACATGCCACCTGCCTGGAAGGAGCCCTGAAAATT  
 AAAGAGATAACCTACATGCACTCAGAAGGCATCCTGGCTGGGAGCTGAAGCACGGGCCCTGGCACTGA  
 TTGACAAGCAGATGCCCGTCATCATGGTATTATGAAGGATCCTTGTTCGCCAAATGCCAGAACGCCCT  
 GCAGCAAGTCACGGCCCGCCAGGTCGCCCCATTATACTGTGCTCCAAGGACGATGACTGAAAGTTCCAAG  
 TTTGCGTATAAGACAATCGAGCTGCCCCACACTGTGGACTGCCTCCAGGGCATCCTGAGCGTGATCCGC  
 TGCAGTGCTGTCTCCACCTGGCTGTTCTCCGAGGATATGACGTTGACTTCCCAGAAATCTGGCCAA  
 GTCTGTAAGTGTGGAA

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC200519 protein sequence  
Red=Cloning site Green=Tags(s)

MCGIFAYMNYRVPRTKRFETLIKGLQRLEYRGYDSAGVAIDGNNHEVKERHIQLVKKRGKVKALDEEL  
 YKQDSMDLKVEFETHFGIAHTRWATHGVP SAVNSHPQRSKGNFVVIHNGIITNYKDLRFLESKGYEF  
 ESETDTETIAKLIKVFNDRETDITFSTLVERVIQQLLEGAFALVFKSVHYPGEAVATRRGSPLLIGVRS  
 KYKLSTEQIPILYRTCTLENVKNICKTRMKRLDSSACLHAGVDKAVEFFASDASAIIEHTNRVIFLEDD  
 DIAAVADGKLSIHRVKRSASDDPSRAIQTLQMEQLQIMKGNFSAFMQKEIFEQPESVFNTMRGRVNFETN  
 TVLLGGLKDHLKEIRRCRRLIVIGCGTSYHAAVATRQVLEELTELPVMVELASDFLDRNTPVFRDDVCF  
 ISQSGETADTLLALRYCKDRGALTVGVTNTVGSSISRETDCGVHINAGPEVGVASTKAYTSQFISLVMFG  
 LMMSEDRI SLQNRQEIIRGLRSLPEL I KEVLSLEEKI HDLAL ELYTQRSL VMGRGNYATCLEGALKI  
 KEITYMHSEGILAGELKHG LPLALIDKQMPVIMVIMKDPCKFAKQNALQQVTARQGRPIILCSKDDTESSK  
 FAYKTIELPHTVDCLQGILSVIPLQLLSFHLAVLRGYDVFPRNLAKSVTVE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6588\\_d01.zip](https://cdn.origene.com/chromatograms/mk6588_d01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005110

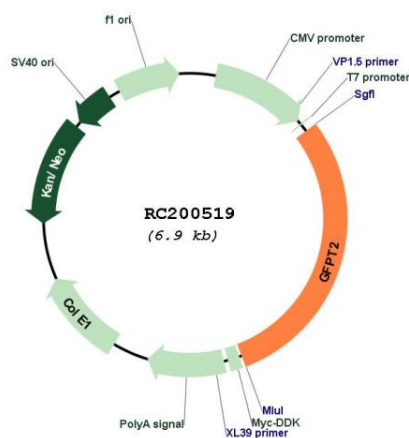
**ORF Size:** 2046 bp

**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](#)

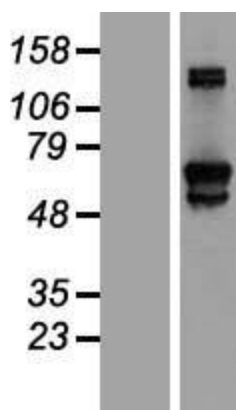
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>	<a href="#">NM_005110.4</a>
<b>RefSeq Size:</b>	3011 bp
<b>RefSeq ORF:</b>	2049 bp
<b>Locus ID:</b>	9945
<b>UniProt ID:</b>	<a href="#">O94808</a>
<b>Cytogenetics:</b>	5q35.3
<b>Domains:</b>	GATase_2, SIS
<b>Protein Families:</b>	Protease
<b>Protein Pathways:</b>	Alanine, aspartate and glutamate metabolism, Amino sugar and nucleotide sugar metabolism, Metabolic pathways
<b>MW:</b>	76.9 kDa
<b>Gene Summary:</b>	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]

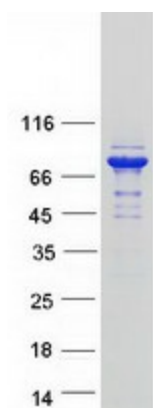
### Product images:



Circular map for RC200519



Western blot validation of overexpression lysate (Cat# [LY417501]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200519 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GFPT2 protein (Cat# [TP300519]). The protein was produced from HEK293T cells transfected with GFPT2 cDNA clone (Cat# RC200519) using MegaTran 2.0 (Cat# [TT210002]).