

Product datasheet for **RC209885**

GPAT 2 (GPAT2) (NM_207328) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GPAT 2 (GPAT2) (NM_207328) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GPAT 2
Synonyms:	CT123
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209885 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTGGAAGGCAGATGCCAAACTCAGCCAAGGAGCAGCCCCAGTGGCCGAGAGGCTAGCCTGTGGTCGT
 CAGGCTTTGGGATGAAGCTGGAGGCTGTCACTCCATTCCCTGGGAAGTATCGCCCCTTTGTGGGTCGCTG
 TTGCCAGACCTGCACCCCAAGAGCTGGGAGTCCCTCTTCCACAGAAGCATAACGGACCTAGGCTTCTGC
 AATGTGATCCTGGTGAAGGAGGAGAACAAGTTTCGGGGCTGGCTGGTTCGGAGGCTCTGCTATTTCC
 TGTGGTCCCTGGAGCAGCACATCCCCCTGCCAGGATGTCCACAGAAGATCATGGAAAGCACCAGGGT
 GCAGAACCTCTCTCAGGGAGGGTCCCAGGAGGCACTGGGGAAGGCCAGGTGCCTGACCTGTGAAGAAG
 GAGGTACAGCGCATCCTGGGTACATCCAGGCCACCCCGTCCCTTCTGGTCAAGGCTGTTCACTGAGG
 CGCTGCTGAGGTTCTGAACTGCCTGTTCTGAATGTGCAGCTCCACAAGGGTCAAGTGAAGATGGTCCA
 GAAGGCCGCCAGGAGGCTTGGCGTTGCTCCTCTCTACTCACAACCCCTCTGGATGGGATCCTG
 CTGCCCTTATGCTGCTCTCCAGGGCCTGGGTGTGCTTCGTGTGGCCTGGGACTCCCGCCTGCTCCC
 CTGCCCTCAGAGCTCTGCTGAGGAAGCTTGGGGGGCTTTTCTGCCCCAGAGGCCAGCCTCTCCCTGGA
 CAGCTCTGAGGGGCTCCTTGCCAGGGCTGTGGTCCAGGCGGTATAGAGCAGCTGCTGGTATGTTGGGCGAG
 CCCCTGCTCATCTTCTGGAGGAACCTCCTGGGGCTCTGGGGCCACGGCTGTGAGCCCTGGGCCAGGCTT
 GGGTGGGGTTTGTGGTGCAGGCAGTCCAGGTGGGCATCGTCCAGATGCTCTGCTGGTACCAGTGGCCGT
 CACCTATGACCTGGTTCAAGATGCACCGTGTGACATAGACCATGCCTCGCCCCCTGGGGCTGTGGACA
 GGAGCTGGCTGTCTACGTAGCTTGTGGAGCCGCTGGGGCTGCAGCCACCGGATCTGCTCCCGGGTGC
 ACCTAGTCAAGCCCTTTCCCTGCAGGAATACATCGTCAAGTCCAGAAAGCTGCTGGGGCGGCAGACAGAC
 CCTGGAGCAGCTACTGCAGCCCATCGTGTGGGCAATGTACTGCTGTCCAGACACTGAGAAGGAGCAG
 GAGTGGACCCCAATAACTGGGCCTCTCCTGGCCCTCAAGGAAGAGGACCAGCTCCTGGTCAAGGAGACTGA
 GCTGTGATGCTCTGAGTGCCAGTGTAGGGAGCTGTGCGGTGATGAGCACGGCCATTATGGCAACGCTGCT
 GCTCTTCAAGCATCAGAAGCTCCTGGGGGAGTTCTCCTGGCTGACGGAGGAGATACTGTTGCGTGGCTTT
 GATGTAGGCTTCTTGGGAGCTGCGGAGCCTGCTGCAGCACTACTGAGCCTGCTGCGGGCGCACGTGG
 CCCTGCTGCGCATCCGTCAAGGTGACTTGTGGTGGTGGCCGAGCCTGGCCAGGCCCTCACACACCTGGC
 ACAACTGAGTGTGAGCTGCTGCCCGTCTTCTGAGCGAGGCTGTGGGGCCTGTGAGTCCGGGGGCTG
 CTGGCAGGCAGAGTGCCGCCAGGGGCCCTGGGAGCTGCAGGGCATATTGCTGCTGAGCCAGAATGAGC
 TGTACCGCAGATCCTGCTGCTGATGCACCTGCTGCCGCAAGACCTGCTGCTGCTAAAGCCCTGCCAGTC
 TTCTACTGCTACTGTCAGGAGGTGCTGGACCGGCTCATCCAATGCGGGCTCCTGGTTGCTGAGGAGACC
 CCAGGCTCCCGGCCAGCCTGTGACACAGGGCGACAGCGATTGAGCAGAAAGCTGCTGTGGAAACCGAGTG
 GGGACTTTACTGATAGTGACAGTGTGACTTCCGAGAGGCTGACGGCCGGTACTTCAGGCTCAGCCAGCA
 GTCACACTGCCAGATTTCTTTCTTTCTCTGCCGCTGCTCAGCCCGCTGCTCAAGGCCCTTGCACAG
 GCTGCCGCTTCTCCGCCAGGGCCAGCTGCCGATACTGAGTTGGGCTACACAGAGCAGCTGTTCCAGT
 TCCTGCAGGCCACGCCAGGAAGAAGGGATCTTCGAGTGTGCGGACCCAAAGCTCGCCATCAGTGTGT
 CTGGACCTTCAAGACCTAGGGGTTCTGCAGCAGACGCCGAGCCCTGCAGGCCCCAGGCTCCACCTGTCC
 CTACTTTTCCAGCCTGGACAATCAGGAAAACTAGAACAGTTTATCCGGCAGTTTATTGTAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC209885 protein sequence
Red=Cloning site Green=Tags(s)

MLEGRCQTQPRSSPSGREASLWSSGFGMKLEAVTPFLGKYRPFVGRCCQTCTPKSWESLFHRSITDLGFC
NVILVKEENTRFRGWLVRRLCYFLWSLEQHIPPQDVPQKIMESTGVQNL SGRVPGGTGEGQVPDLVKK
EVQRILGHIQAPRPFLVRLFSWALLRFLNCLFLNVQLHKQMKMVQKAAQAGLPLVLLSTHKTL LDGIL
LPFMLLSQGLGVL RVAWDSRACSPALRALLRKL GGLFLPPEASLSDSSEGLLARAVVQAVIEQLLVSGQ
PLLI FLEPPGALGPRLSALGQAWVGFVVQAVQVGI VPDALLVPVAVTYDLVQDAPCDIDHASAPLGLWT
GALAVLRSLWSRWGCSHRICSRVHLAQPFSLQEYIVSARSCWGRQTLEQLLQPIVLGQCTAVPDEKEQ
EWTPITGPLLALKEEDQLLVRRLSCHVLSASVGSsavmstaimatlllFKHQKLLGEFSWL TEEILLRGF
DVGFSGQLRSL LQHSL SLLRAHVALLRIRQGDLLVVPQPGPGLTHLAQLSAELLPVFLSEAVGACAVRGL
LAGRVPPQGPWELQGILLLSQNELYRQILLMLHLLPQDLLLLKPCQSSYCYQEVLDRLIQCGLLVAEET
PGSRPACDTGRQRLSRKLLWKPSGDF TDSDDFGEADGRYFRLSQQSHCPDFFLFLCRLLSPLLKAF AQ
AAAF LRQQLPDTELGYTEQLFQFLQATAQE EGFECADPKLAISAVWTFRDLGVLQQTPSPAGPRLHLS
PTFASLDNQEKLEQFIRQFICS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6155_e11.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_207328

ORF Size: 2376 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_207328.3](#)

RefSeq Size: 2840 bp

RefSeq ORF: 2388 bp

Locus ID: 150763

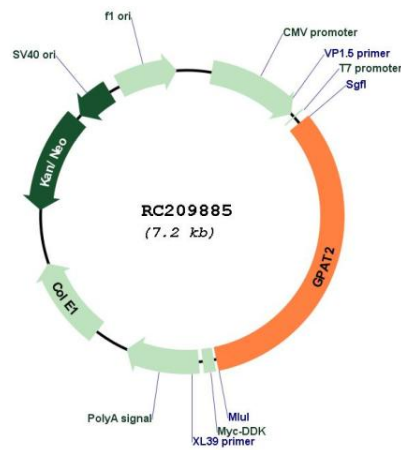
UniProt ID: [Q6NUI2](#)

Cytogenetics: 2q11.2

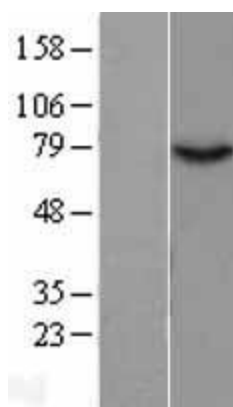
MW: 87.6 kDa

Gene Summary: Esterifies acyl-group from acyl-ACP to the sn-1 position of glycerol-3-phosphate, an essential step in glycerolipid biosynthesis. Required for primary processing step during piRNA biosynthesis. Molecular mechanisms by which it promotes piRNA biosynthesis are unclear and do not involve its acyltransferase activity.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC209885



Western blot validation of overexpression lysate (Cat# [LY403722]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209885 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).