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Product datasheet for SC110864

CTP synthase (CTPS1) (NM_001905) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CTP synthase (CTPS1) (NM_001905) Human Untagged Clone
Tag:	Tag Free
Symbol:	CTP synthase
Synonyms:	CTPS; GATD5; GATD5A; IMD24
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC110864 sequence for NM_001905 edited (data generated by NextGen Sequencing)

ATGAAGTACATTCTGGTTACTGGTGGTGTTATATCAGGAATTGGAAAAGGAATCATTGCC
AGCAGTGTGGGCACAATACTCAAGTCATGTGGTTTACATGTAACTTCAATCAAAATTGAC
CCCTACATTAACATTGATGCAGGAACATTCTCTCCTTATGAGCATGGTGAGGTTTTTGTG
CTGGATGATGGTGGGGAAGTAGACCTTGACCTGGGTAACTATGAGCGGTTCCTTGACATC
CGCCTCACCAAGGACAATAATCTGACCACTGGAAAGATATACCAGTATGTCATTAACAAG
GAACGGAAAGGAGATTACTTGGGGAAAACTGTCCAAGTTGTCCCTCATATCACAGATGCA
ATCCAGGAGTGGGTGATGAGACAGGCGTTAATACCTGTAGATGAAGATGGCCTGGAACCT
CAAGTGTGTGTTATTGAGCTTGGTGGAACCGTGGGGGACATAGAAAGCATGCCCTTTATT
GAGGCCTTCCGTCAGTTCCAATTCAAGGTCAAAAGAGAGAACTTTTGTAACATCCACGTC
AGTCTAGTTCCCCAGCCAAGTTCAACAGGGGAACAGAAGACTAAACCTACCCAGAATAGT
GTTCGGGAACTTAGAGGACTTGGGCTTTCCCCAGATCTGGTTGTATGCAGGTGCTCAAAT
CCACTTGACACATCAGTGAAGGAGAAAATATCAATGTTCTGCCATGTTGAGCCTGAACAA
GTGATCTGTGTCCACGATGTCTCATCCATCTACCGAGTCCCCTTGTTGTTAGAGGAGCAA
GGGGTTGTAGATTATTTTCTTCGAAGACTTGACCTTCCTATTGAGAGGCAGCCAAGAAAA
ATGCTGATGAAATGGAAAGAGATGGCTGACAGATATGATCGCTTGCTGGAGACCTGCTCT
ATTGCCCTTGTGGGCAAATACACGAAGTTCTCAGACTCCTATGCCTCTGTCATTAAGGCT
CTGGAGCATTCTGCACTGGCCATCAACCACAAATTGGAAATCAAGTACATAGATTCTGCG
GACTTGGAGCCCATCACCTCGCAAGAAGAGCCCGTGCGCTACCACGAAGCTTGGCAGAAG
CTCTGTAGTGCTCATGGAGTGCTGGTTCCAGGAGGATTTGGTGTTCGAGGAACAGAAGGA
AAAATCCAAGCAATTGCCTGGGCTCGGAATCAGAAAAAGCCTTTTTTGGGCGTGTGCTTA
GGGATGCAGTTGGCAGTGGTTGAATTCTCAAGAAACGTGCTGGGATGGCAAGATGCCAAT
TCTACAGAGTTTGACCCTACGACCAGTCATCCCGTGGTCGTAGACATGCCAGAACACAAC
CCAGGGCAGATGGGCGGAACCATGAGGCTGGGCAAGAGGAGAACCCTGTTCCAGACCAAG
AACTCAGTCATGAGGAAACTCTATGGAGACGCAGACTACTTGGAAGAGAGGCACCGCCAC
CGATTTGAGGTGAATCCAGTCTGGAAAAAGTGTTTGGAAGAACAAGGCTTGAAGTTTGTT
GGCCAAGATGTTGAAGGAGAGAGAATGGAAATTGTGGAGTTAGAAGATCATCCCTTTTTT
GTTGGGGTTCAGTACCACCCTGAGTTCCTGTCCAGGCCTATCAAGCCCTCCCCACCATAC
TTTGGCCTCCTCCTGGCCTCTGTGGGGCGGCTCTCACATTACCTCCAGAAAGGCTGCAGG
CTCTCACCCAGGGACACCTATAGTGACAGGAGTGGAAGCAGCTCCCCTGACTCTGAAATC
ACCGAACTGAAGTTTCCATCAATAAATCATGACTGA

Clone variation with respect to NM_001905.2

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001905 unedited
GCATTTTGTATACGACTCACTATAGGCGGCNCGCGAATTCGCACGAGGCCTCGTGCCGAA
TTCGGCACGAGGGACTGCCGGGCGCATGCGGTCGGGGTTGTTCACTGGCTGTCCGGGGCT
CCGCGCGCGTCGCCGGCCCAGCTCTGTCGCTGACGGGAGGATCTGAAGCCGGCCGCAGGT
CAAAGAGTAAAATGAAGTACATTCTGGTTACTGGTGGTGTTATATCAGGAATTGGAAAAG
GAATCATTGCCAGCAGTGTGGGCACAATACTCAAGTCATGTGGTTTACATGTAACTTCAA
TCAAAATTGACCCCTACATTAACATTGATGCAGGAACATTCTCTCCTTATGAGCATGGTG
AGGTTTTTGTGCTGGATGATGGTGGGGAAGTAGACCTTGACCTGGGTAACTATGAGCGGT
TCCTTGACATCCGCCTCACCAAGGACAATAATCTGACCACTGGAAAGATATACCAGTATG
TCATTAACAAGGAACGGAAAGGAGATTACTTGGGGAAAACTGTCCAAGTTGTCCCTCATA
TCACAGATGCAATCCAGGAGTGGGTGATGAGACAGGCGTTAATACCTGTAGATGAAGATG
GCCTGGAACCTCAAGTGTGTGTTATTGAGCTTGGTGGAACCGTGGGGGACATAGAAAGCA
TGCCCTTTATTGAGGCCTTCCGTCAGTTCCAATTCAAGGGTCAAAAGAGAGAACTTTTTG
AACATCCACGTCAGTCTAGTTTCCCAGCCCAGTTCAACCAGGGAACAGAAGACTAAACCT
ACCCAGATAGTGTTCGGGAACTTAGAGGACTTGGGCTTTCCCCAGACTGGTTGGATGCAG
TTGCTTCAATCCACTTGCACATTCTGGAAGGAGAAATATTCATGTTCTGCCTGTTGAGCC
GAACAGTGAATCGGGTCACAATGCCTATCCTTTACCAATCCCTTGTTGTAAG

3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_001905 unedited
CGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTCTCTGGGCCGGCCTTACGGATTTATTTCTTAAGTTAA
AGACCCCATCGAGTCTGGCCAAAATATAATCCCACGTACCTTTGCCTATTGCTAGGGCAC
ATTAAAAAAGTAACTTCTTATTGCCCTTTCAACTGCAGAAACCCCTTCCTGGAAAAAAAA
GGGCCCCTCCAGTCAAAGCTGTTTATTTTTGAAAGGGTTTTAAAGGAAGTTTCCCCCAAA
AAATTTTTTGTTTTGTAAGGGACCCCTTGATGCAAGGAGGGTTTCCCACCCCTAAAAATA
GGAACCCCACCCCCAGGCATGGGGATTTTAAAATCACCCTTCAAAAACAAACATTTTGGG
GTTTCATGTTGACCCCAAACTGACCGCCCCTTTGAATGAGGACCACCCACAGTGGGCCCT
GAAAATTCCCCCCAACTCAGGGCAGTATAAAAATTTTGCCTTTGGTTTCATGGCTTAGGG
GCAAGCAATACCCTGAGGTTCCCAGCCCCAAGTGTTCAAATCCTAACTAAAATCCTCTCT
CCATGCTCGGAAAGCCCATGTGGCCCACTTTTATACGGGCTAGGTTTCCCAGGGAAACCC
ACCGGCACCCCCCTCCTTTTGCAATGATGCGAGGTATTTGAAAAAACAGGTGACCCATGG
GGCACTTTGGACCCCCACCCCCCATGGGTTCCCATTGGGATGTTCCTGCCCGACCTAAAA
ACTCGAAGGGGAAGTGGTCCCCCAAAAGGCAACACCCACAGAGGGACCCTTCCCCGGGAT
GGGACATTGCATGGACAAAGTTCCCAAAATCCTCTCCGCAAATAAAATATTCTTAATAAA
ACTATTTTAAGAAAGTTCCACACCCGGGGAAAGCNAAAGCTGAGACCCACCACGTTGAAG
GGCCTTTGAAA
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Restriction Sites: NotI-NotI

ACCN: NM_001905

Insert Size: 3160 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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

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_001905.1, NP_001896.1

RefSeq Size:	2758 bp
RefSeq ORF:	1776 bp
Locus ID:	1503
UniProt ID:	P17812
Cytogenetics:	1p34.2
Domains:	GATase
Protein Pathways:	Metabolic pathways, Pyrimidine metabolism
Gene Summary:	This gene encodes an enzyme responsible for the catalytic conversion of UTP (uridine triphosphate) to CTP (cytidine triphospate). This reaction is an important step in the biosynthesis of phospholipids and nucleic acids. Activity of this proten is important in the immune system, and loss of function of this gene has been associated with immunodeficiency. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014] Transcript Variant: This variant (1) encodes the longer isoform (a).