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Product datasheet for SC110578

CTPS2 (NM_175859) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CTPS2 (NM_175859) Human Untagged Clone
Tag:	Tag Free
Symbol:	CTPS2
Synonyms:	GATD5B
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

Fully Sequenced ORF:

>NCBI ORF sequence for NM_175859, the custom clone sequence may differ by one or more nucleotides

ATGAAGTACATCCTGGTCACGGGTGGGGTCATCTCAGGCATTGGTAAAGGGATCATTGCCAGCAGCATTG
GAACGATTCTAAAATCATGTGGACTCCGAGTTACTGCCATAAAAATCGACCCCTATATTAACATCGATGC
TGGCACTTTTTCACCTTATGAACACGGTGAAGTCTTCGTCTTAAATGATGGTGGAGAAGTTGATTTAGAC
CTTGGAAATTATGAAAGATTTTTGGATATTAATCTTTATAAAGACAACAATATCACCACGGGGAAGATAT
ATCAGCATGTGATCAATAAAGAGAGGCGTGGTGATTACCTGGGGAAAACAGTGCAAGTTGTCCCTCACAT
TACTGATGCTGTCCAGGAGTGGGTTATGAATCAAGCCAAGGTGCCGGTGGATGGTAATAAGGAAGAGCCC
CAAATATGCGTTATTGAGCTGGGAGGCACCATTGGAGACATCGAAGGAATGCCGTTTGTGGAGGCGTTTA
GACAATTCCAGTTTAAGGCGAAAAGAGAGAATTTCTGTAATATCCACGTTAGCCTTGTCCCACAGCTCAG
TGCTACCGGAGAACAAAAAACCAAACCCACCCAAAACAGCGTCCGCGCACTGAGGGGTTTAGGCCTGTCT
CCAGATCTGATTGTCTGCCGAAGTTCAACGCCCATTGAGATGGCCGTGAAGGAGAAGATTTCTATGTTTT
GTCACGTGAACCCTGAACAGGTCATATGTATCCATGATGTTTCTTCCACATACCGAGTTCCTGTGCTTTT
AGAGGAACAAAGCATTGTGAAATATTTTAAGGAGAGATTGCACCTGCCCATCGGTGATTCTGCAAGTAAT
TTGCTTTTTAAGTGGAGAAATATGGCTGACAGGTATGAAAGGTTACAGAAAATATGCTCCATAGCCCTGG
TTGGCAAATACACCAAGCTCAGAGACTGCTACGCCTCTGTGTTCAAAGCCCTGGAACACTCAGCCCTGGC
CATCAACCACAAGTTGAATCTGATGTACATAGACTCCATTGATCTGGAGAAGATCACTGAAACCGAGGAC
CCTGTGAAATTTCATGAAGCTTGGCAGAAGCTATGCAAAGCTGATGGTATTCTTGTGCCTGGAGGCTTTG
GAATCAGAGGAACATTGGGAAAACTCCAGGCGATTTCTTGGGCAAGGACAAAGAAGATTCCTTTTCTGGG
AGTTTGTCTTGGGATGCAACTAGCAGTGATAGAGTTTGCAAGAAACTGCCTTAACTTGAAAGATGCTGAT
TCCACAGAGTTTAGGCCAAATGCCCCAGTTCCTCTGGTGATTGATATGCCCGAGCACAACCCTGGCAATT
TGGGAGGAACAATGAGACTGGGAATAAGAAGAACTGTTTTCAAAACTGAAAATTCAATATTAAGGAAACT
TTATGGTGATGTTCCTTTTATAGAAGAAAGACACAGACATCGGTTCGAGGTAAACCCTAACCTGATCAAA
CAATTTGAGCAGAATGACTTAAGTTTTGTAGGTCAGGATGTTGATGGAGACAGGATGGAAATCATTGAAC
TGGCAAATCATCCTTATTTTGTTGGTGTCCAGTTCCATCCTGAGTTTTCTTCTAGGCCGATGAAGCCTTC
CCCTCCGTATCTGGGGCTGTTACTTGCAGCAACTGGGAACCTGAATGCCTACTTGCAACAGGGTTGCAAA
CTGTCTTCCAGTGATAGATACAGTGATGCCAGTGATGACAGCTTTTCAGAGCCAAGGATAGCTGAGTTGG
AAATAAGCTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_175859 unedited
ATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGGCCACCCTCCC
CGGTGCTACCACCACCGCGCAGATTATATCTGGGTGTTGGCACCCAGCCACTATTCTGCC
AATGAAGTACATCCTGGTCACGGGTGGGGTCATCTCAGGCATTGGTAAAGGGATCATTGC
CAGCAGCATTGGAACGATTCTAAAATCATGTGGACTCCGAGTTACTGCCATAAAAATCGA
CCCCTATATTAACATCGATGCTGGCACTTTTTCACCTTATGAACACGGTGAAGTCTTCGT
CTTAAATGATGGTGGAGAAGTTGATTTAGACCTTGGAAATTATGAAAGATTTTTGGATAT
TAATCTTTATAAAGACAACAATATCACCACGGGGAAGATATATCAGCATGTGATCAATAA
AGAGAGGCGTGGTGATTACCTGGGGAAAACAGTGCAAGTTGTCCCTCACATTACTGATGC
TGTCCAGGAGTGGGTTATGAATCAAGCCAAGGTGCCGGTGGATGGTAATAAGGAAGAGCC
CCAAATATGCGTTATTGAGCTGGGAGGCACCATTGGAGACATCGAAGGAATGCCGTTTGT
GGAGGCGTTTAAACATTCCAGTTTAAGGCGAAAAGAGAGAATTTCTGNTATATCCACGTT
AGCCTTGTCCCACAGCTCAGTGCTACCGGAGACAAAAACCAAACCCCCCANACAGCGTCC
GCGCACTGAGGGGTTANGCCTGTCTNCAGATCTGATGTCTGCCGAAAGTCAACGCCATTG
AGATGGCCGTGAAGAGAAGATTNTATGTTTTGTCACGTGAACCTGNNACAGTCTATGATC
CATGATGTTTCTTCCATACCGAGTTCTGC

3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_175859 unedited
ATGGACGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTGTGGTATATTCATA
CAATGGGAATTTTATTCAGCCATAGAAAGGAATGAAATTCTGACACATGCTACAACATGG
GTAAACCTTGCAAACGCCATGCTAAATGGAAGCCTGACTGACCAGGGGCTCTTGGGCTCT
CAATGCAATAGAAACTGACATGGGGCCAAAAGACTTCCCAGACAAAGCACGCGAAGGGTA
GAGGATATAGGTTAGCATCATCTGGTTGTGATGATCATCTCGAGTAATGGGCCACCTGGT
GGTCTGGCCAGCGGCAACAAGGCTGTAAATCAATTAATTATTCAGCATTCCCTCCCAAGA
TGGGACACTCTGCAATCTTGGTTCCCTATTTGGATCTCCTAAGGCCAGTTCCTGGAATTG
TTTAAGTAAAAGACATGGTTAAGCATTATGAGAGCACAGAAGAACAATACAGAAAGGCCA
TTTTCTTTGTATGACTAAAGCCTCGAGGTTAGCAGGTATGGTGTCAATGAGGTAGTAGTA
TGGGTTTTGTGATCAGTGGGAATGCATGAAAAAATGCTCTAGTGGGGGTGAGCCAAAGCC
AAGCCCCCTTCCTACTGTCTCAGAAGAAGCCAGACACAAAAGACCACATATATTGTGTAA
TTCCACTTATATGAAATATCCAGAATAGAAAAAGCCACAGAAATAAAAAGGAGATCAGTG
GTTGCCAGCGGACAGGTGGAGGGGAAGATAGGGAGTGACTGCTAGTGTGTACAGGCATTT
ATTNTGGAGTGATGAAAAATGTTTGGAAATAGTTAAAGGTGGTGGNTTGCTCAACATCAG
TGAATGCAACCAATTGTTCACTTCAAAATGGTAATTCTATGTTACGTGAAATTCACGTCG
ATAAAAATAT
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Restriction Sites: NotI-NotI

ACCN: NM_175859

Insert Size: 3780 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_175859.1, NP_787055.1

RefSeq Size: 3947 bp

RefSeq ORF: 1761 bp

Locus ID: 56474

UniProt ID: Q9NRF8

Cytogenetics: Xp22.2

Protein Pathways: Metabolic pathways, Pyrimidine metabolism

Gene Summary: The protein encoded by this gene catalyzes the formation of CTP from UTP with the concomitant deamination of glutamine to glutamate. This protein is the rate-limiting enzyme in the synthesis of cytosine nucleotides, which play an important role in various metabolic processes and provide the precursors necessary for the synthesis of RNA and DNA. Cancer cells that exhibit increased cell proliferation also exhibit an increased activity of this encoded protein. Thus, this protein is an attractive target for selective chemotherapy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]
Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 3. Variants 1, 2 and 3 encode the same protein.