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Product datasheet for RC205993

CTPS2 (NM_019857) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CTPS2 (NM_019857) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CTPS2
Synonyms:	DKFZp686C17207; FLJ43358; MGC32997
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

ORF Nucleotide Sequence:

>RC205993 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGTACATCCTGGTCACGGGTGGGGTCATCTCAGGCATTGGTAAAGGGATCATTGCCAGCAGCATTG
GAACGATTCTAAAATCATGTGGACTCCGAGTTACTGCCATAAAAATCGACCCCTATATTAACATCGATGC
TGGCACTTTTTCACCTTATGAACACGGTGAAGTCTTCGTCTTAAATGATGGTGGAGAAGTTGATTTAGAC
CTTGGAAATTATGAAAGATTTTTGGATATTAATCTTTATAAAGACAACAATATCACCACGGGGAAGATAT
ATCAGCATGTGATCAATAAAGAGAGGCGTGGTGATTACCTGGGGAAAACAGTGCAAGTTGTCCCTCACAT
TACTGATGCTGTCCAGGAGTGGGTTATGAATCAAGCCAAGGTGCCGGTGGATGGTAATAAGGAAGAGCCC
CAAATATGCGTTATTGAGCTGGGAGGCACCATTGGAGACATCGAAGGAATGCCGTTTGTGGAGGCGTTTA
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TGCTACCGGAGAACAAAAAACCAAACCCACCCAAAACAGCGTCCGCGCACTGAGGGGTTTAGGCCTGTCT
CCAGATCTGATTGTCTGCCGAAGTTCAACGCCCATTGAGATGGCCGTGAAGGAGAAGATTTCTATGTTTT
GTCACGTGAACCCTGAACAGGTCATATGTATCCATGATGTTTCTTCCACATACCGAGTTCCTGTGCTTTT
AGAGGAACAAAGCATTGTGAAATATTTTAAGGAGAGATTGCACCTGCCCATCGGTGATTCTGCAAGTAAT
TTGCTTTTTAAGTGGAGAAATATGGCTGACAGGTATGAAAGGTTACAGAAAATATGCTCCATAGCCCTGG
TTGGCAAATACACCAAGCTCAGAGACTGCTACGCCTCTGTGTTCAAAGCCCTGGAACACTCAGCCCTGGC
CATCAACCACAAGTTGAATCTGATGTACATAGACTCCATTGATCTGGAGAAGATCACTGAAACCGAGGAC
CCTGTGAAATTTCATGAAGCTTGGCAGAAGCTATGCAAAGCTGATGGTATTCTTGTGCCTGGAGGCTTTG
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TTATGGTGATGTTCCTTTTATAGAAGAAAGACACAGACATCGGTTCGAGGTAAACCCTAACCTGATCAAA
CAATTTGAGCAGAATGACTTAAGTTTTGTAGGTCAGGATGTTGATGGAGACAGGATGGAAATCATTGAAC
TGGCAAATCATCCTTATTTTGTTGGTGTCCAGTTCCATCCTGAGTTTTCTTCTAGGCCGATGAAGCCTTC
CCCTCCGTATCTGGGGCTGTTACTTGCAGCAACTGGGAACCTGAATGCCTACTTGCAACAGGGTTGCAAA
CTGTCTTCCAGTGATAGATACAGTGATGCCAGTGATGACAGCTTTTCAGAGCCAAGGATAGCTGAGTTGG
AAATAAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205993 protein sequence
Red=Cloning site Green=Tags(s)

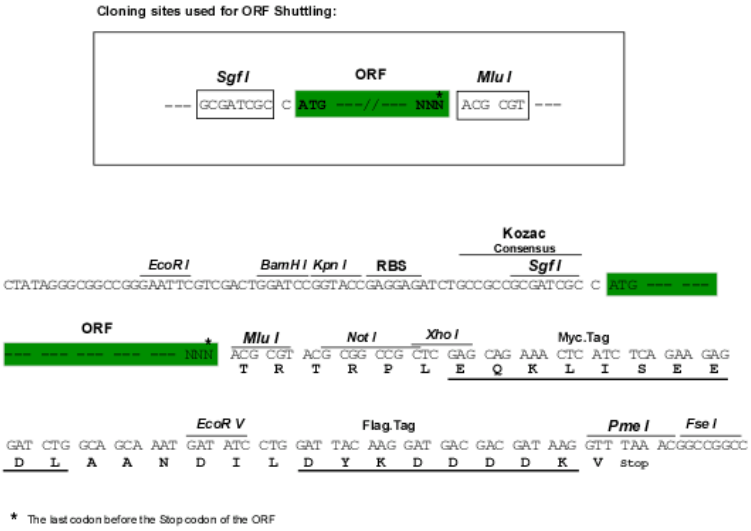
MKYILVTGGVISGIGKGIIASSIGTILKSCGLRVTAIKIDPYINIDAGTFSPYEHGEVFVLNDGGEVDLD
LGNYERFLDINLYKDNNITTGKIYQHVINKERRGDYLGKTVQVVPHITDAVQEWVMNQAKVPVDGNKEEP
QICVIELGGTIGDIEGMPFVEAFRQFQFKAKRENFCNIHVSLVPQLSATGEQKTKPTQNSVRALRGLGLS
PDLIVCRSSTPIEMAVKEKISMFCHVNPEQVICIHDVSSTYRVPVLLEEQSIVKYFKERLHLPIGDSASN
LLFKWRNMADRYERLQKICSIALVGKYTKLRDCYASVFKALEHSALAINHKLNLMYIDSIDLEKITETED
PVKFHEAWQKLCKADGILVPGGFGIRGTLGKLQAISWARTKKIPFLGVCLGMQLAVIEFARNCLNLKDAD
STEFRPNAPVPLVIDMPEHNPGNLGGTMRLGIRRTVFKTENSILRKLYGDVPFIEERHRHRFEVNPNLIK
QFEQNDLSFVGQDVDGDRMEIIELANHPYFVGVQFHPEFSSRPMKPSPPYLGLLLAATGNLNAYLQQGCK
LSSSDRYSDASDDSFSEPRIAELEIS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

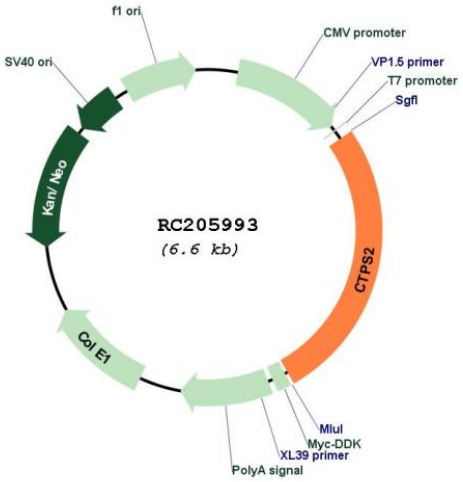
Chromatograms: https://cdn.origene.com/chromatograms/mk6534_d03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:

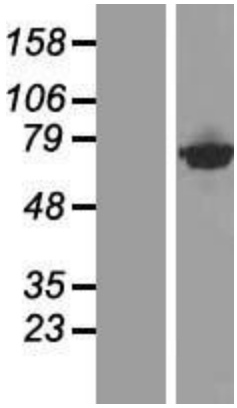


ACCN: NM_019857

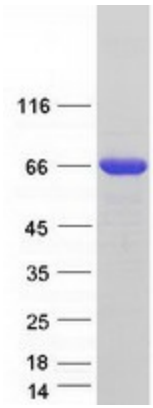
ORF Size: 1758 bp

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.
RefSeq:	NM_019857.1, NM_019857.2, NM_019857.3, NM_019857.4, NM_019857.5, NP_062831.3
RefSeq Size:	3887 bp
RefSeq ORF:	1761 bp
Locus ID:	56474
Domains:	GATase
Protein Pathways:	Metabolic pathways, Pyrimidine metabolism
MW:	65.7 kDa
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]

Product images:



Western blot validation of overexpression lysate (Cat# [LY428462]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC226565] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CTPS2 protein (Cat# [TP305993]). The protein was produced from HEK293T cells transfected with CTPS2 cDNA clone (Cat# RC205993) using MegaTran 2.0 (Cat# [TT210002]).