

Product datasheet for **RC204856**

CMPK1 (NM_016308) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CMPK1 (NM_016308) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CMPK1
Synonyms:	CK; CMK; CMPK; UMK; UMP-CMPK; UMPK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204856 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGCTGAGCCGCTGCCGAGCCGGCTGCTCCACGTCTGGGCCTTAGCTTCCTGCTGCAGACCCGCCGGC
CGATTCTCCTCTGCTCTCCACGTCTCATGAAGCCGCTGGTCGTGTTGTCCTCGGCCGCCCGCCGGC
CAAGGGGACCCAGTGC GCCGCATCGTCGAGAAATATGGCTACACACACCTTTCTGCAGGAGAGCTGCTT
CGTGATGAAAGGAAGAACCAGATTCACAGTATGGTGAAGTTATTGAAAAGTACATTAAGAAGGAAAGA
TTGTACCAGTTGAGATAACCATCAGTTTATTAAGAGGGAAATGGATCAGACAATGGCTGCCAATGCTCA
GAAGAATAAATCTTGATTGATGGGTTTCCAAGAAATCAAGACAACCTTCAAGGATGGAACAAGACCATG
GATGGGAAGGCAGATGTATCTTTCTGTTCTTTTTGACTGTAATAATGAGATTTGATTGAACGATGTC
TTGAGAGGGGAAAGAGTAGTGGTAGGAGTGATGACAACAGAGAGAGCTTGGAAAAGAGAATTCAGACCTA
CCTTCAGTCAACAAGCCAATTATTGACTTATATGAAGAAATGGGGAAAGTCAAGAAAATAGATGCTTCT
AAATCTGTTGATGAAGTTTTGATGAAGTTGTGCAGATTTTTGACAAGGAAGGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204856 protein sequence
Red=Cloning site Green=Tags(s)

MLSRCRSRLHLVGLSFLQTRRPILLCSPLMKPLVVFVLGGPGAGKGTQCARIVEKYGYTHLSAGELL
 RDERKNPDSQYGELIEKYIKEGKIVPVEITISLLKREMDQTMANAQKNKFLIDGFPRNQDNLQGWNKTM
 DGKADVSFVLFDCNNEICIERCLERKGS SGRSDDNRESLEKRIQTYLQSTKPIIDL YEEMGKVKKIDAS
 KSVDEVFDEVVQIFDKEG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6063_b08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016308

ORF Size: 684 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_016308.3](#)

RefSeq Size: 2956 bp

RefSeq ORF: 687 bp

Locus ID: 51727

UniProt ID: [P30085](#)

Cytogenetics: 1p33

Domains: ADK

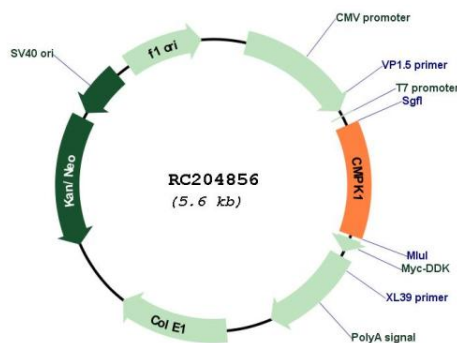
Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Pyrimidine metabolism

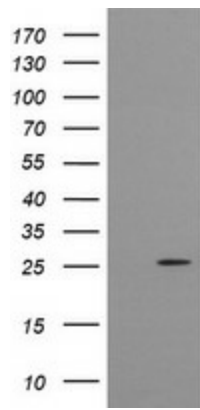
MW: 26 kDa

Gene Summary: This gene encodes one of the enzymes required for cellular nucleic acid biosynthesis. This enzyme catalyzes the transfer of a phosphate group from ATP to CMP, UMP, or dCMP, to form the corresponding diphosphate nucleotide. Alternate splicing results in both coding and non-coding transcript variants. [provided by RefSeq, Feb 2012]

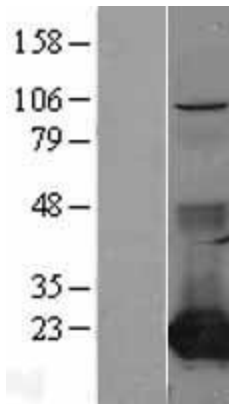
Product images:



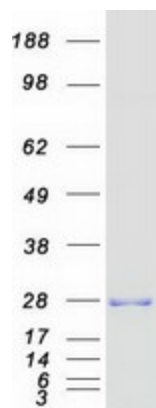
Circular map for RC204856



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CMPK1 (Cat# RC204856, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CMPK1 (Cat# [TA505390]). Positive lysates [LY402539] (100ug) and [LC402539] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402539]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204856 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CMPK1 protein (Cat# [TP304856]). The protein was produced from HEK293T cells transfected with CMPK1 cDNA clone (Cat# RC204856) using MegaTran 2.0 (Cat# [TT210002]).