

Product datasheet for RC201228

DTYMK (NM_012145) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DTYMK (NM_012145) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DTYMK
Synonyms:	CDC8; PP3731; TMPK; TYMK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201228 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCCCGCGCGGGCTCTCATAGTGTGGAGGGCGTGGACCGCGCCGGAAGAGCACGCAGAGCC
GCAAGCTGGTGAAGCGCTGTGCGCCGCGGGCCACCGCGCGAACTGCTCCGGTCCCGAAAGATCAAC
TGAAATCGGCAACTTCTGAGTTCCTACTTGAAAAGAAAAGTGACGTGGAGGATCACTCGGTGCACCTG
CTTTTTCTGCAATCGCTGGGAACAAGTGCCGTTAATTAAGGAAAAGTTGAGCCAGGGCGTGACCCTCG
TCGTGGACAGATACGCATTTCTGGTGTGGCCTTCACCGGTGCCAAGGAGAATTTTCCCTAGACTGGTG
TAAACAGCCAGACGTGGGCCTTCCCAAACCCGACCTGGTCTGTTCTCCAGTTACAGCTGGCGGATGCT
GCCAAGCGGGGAGCGTTTGGCCATGAGCGCTATGAGAACGGGGCTTCCAGGAGCGGGCGCTCCGGTGT
TCCACCAGCTCATGAAAGACACGACTTTGAACTGGAAGATGGTGGATGCTTCAAAGCATCGAAGCTGT
CCATGAGGACATCCGCGTCTCTGAGGACGCCATCCGCACTGCCACAGAGAAGCCGCTGGGGGAGCTA
TGGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201228 protein sequence
Red=Cloning site Green=Tags(s)

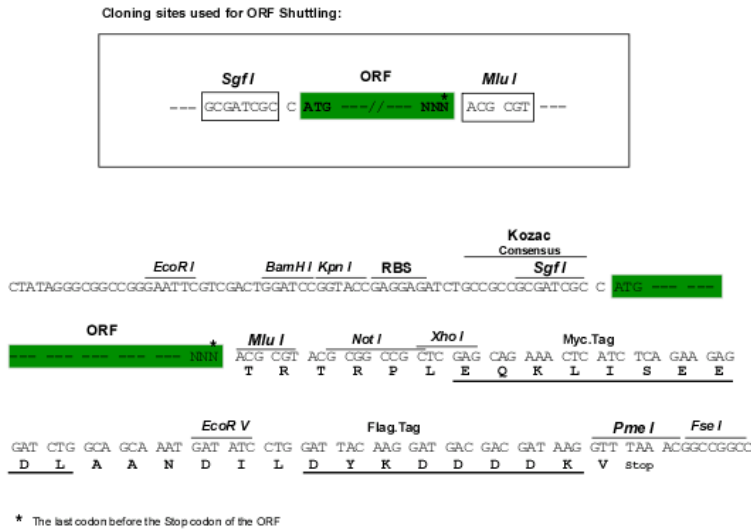
MAARRGALIVLEGVDRAGKSTQSRKLVEALCAAGHRAELLRFPERSTEIGKLLSSYLQKKSDEVDSVHL
 LFSANRWEQVPLIKEKLSQGVTLVVDRYAFSGVAFTGAKENFLDWCKQPDVGLPKPDLVFLQLQLADA
 AKRGAFGHERYENGAFQERALRCFHQLMKDITLNNKMDASKSIEAVHEDIRVLSEDAIRTATEKPLGEL
 WK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6233_e04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012145

ORF Size: 636 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_012145.4](#)

RefSeq Size: 1227 bp

RefSeq ORF: 639 bp

Locus ID: 1841

UniProt ID: [P23919](#)

Cytogenetics: 2q37.3

Domains: Thymidylate_kin

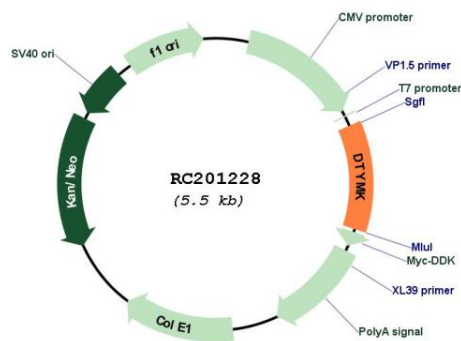
Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Pyrimidine metabolism

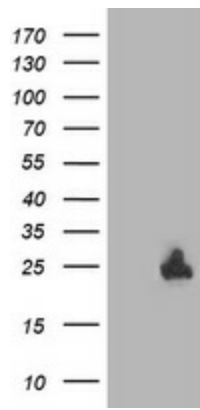
MW: 23.8 kDa

Gene Summary: Catalyzes the conversion of dTMP to dTDP.[UniProtKB/Swiss-Prot Function]

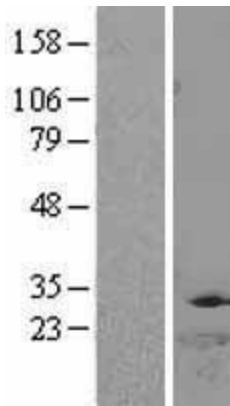
Product images:



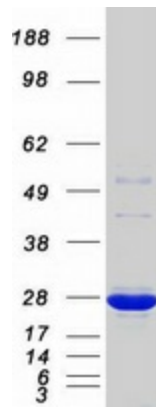
Circular map for RC201228



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DTYMK (Cat# RC201228, 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-DTYMK (Cat# [TA503493]). Positive lysates [LY415933] (100ug) and [LC415933] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY415933]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201228 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DTYMK protein (Cat# [TP301228]). The protein was produced from HEK293T cells transfected with DTYMK cDNA clone (Cat# RC201228) using MegaTran 2.0 (Cat# [TT210002]).