

Product datasheet for **RC223090**

DCTD (NM_001012732) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: DCTD (NM_001012732) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: DCTD
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC223090 representing NM_001012732
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGTGGGCGGGGCCAGCCGTGCGGACCAACATGAGTGAAGTTTCTGCAAGAAACGGGACGACTATT
TGGAAATGGCCAGAGTATTTATGGCTGTGGCCTTCTTATCAGCACAGAGAAGCAAAGATCCAAATCCCA
GGTCGGCGCCTGCATCGTGAATTCAGAAAACAAGATTGTCGGGATTGGGTACAATGGGATGCCAAATGGG
TGCAGTATGACGTGTTGCCTTGGAGAAGGACAGCAGAGAATAAGCTGGACCAAAATACCCGTACGTGT
GCCATGCGGAGCTGAATGCCATCATGAACAAAATTCGACCGATGTGAAAGGCTGTAGTATGTATGTTGC
CTTGTTCCCTTGAATGAATGCGCTAAGCTCATCATCCAGGCAGGTATAAAAGAAGTGATTTTCATGTCT
GATAAATACCATGATAGTGACGAGGCAACTGCTGCGAGGCTCCTGTTTAATATGGCCGGGTGACATTCC
GGAAATTCATACCGAAGTGCAGCAAGATTGTCATTGACTTTGATTCAATTAACAGCAGACCGAGTCAAAA
GCTTCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC223090 representing NM_001012732
Red=Cloning site Green=Tags(s)

MVGGGQPCGPNMSEVSKKRDDYLEWPEYFMAVAFLSAQRSKDPNSQVGACIVNSENKIVGIGYNGMPNG
CSDDVLPWRRTAENKLDTKYPYVCHAELENAIMNKNSTDVKGCSMYVALFPCNECAKLIIQAGIKEVIFMS
DKYHDSDEATAARLLFNMAGVTRFKFIPKCSKIVIDFDSINSRPSQKLQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1251_b01.zip



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001012732

ORF Size: 567 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](#)

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_001012732.1](#), [NP_001012750.1](#)

RefSeq Size: 2042 bp

RefSeq ORF: 570 bp

Locus ID: 1635

UniProt ID: [P32321](#)

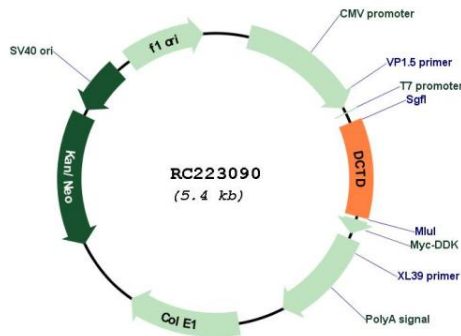
Cytogenetics: 4q35.1

Protein Pathways: Metabolic pathways, Pyrimidine metabolism

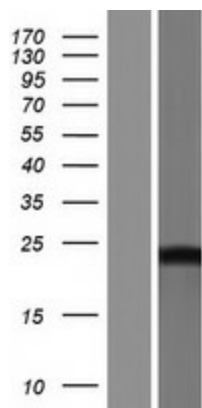
MW: 20.8 kDa

Gene Summary: The protein encoded by this gene catalyzes the deamination of dCMP to dUMP, the nucleotide substrate for thymidylate synthase. The encoded protein is allosterically activated by dCTP and inhibited by dTTP, and is found as a homohexamer. This protein uses zinc as a cofactor for its activity. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

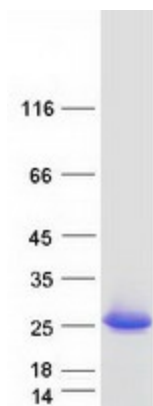
Product images:



Circular map for RC223090



Western blot validation of overexpression lysate (Cat# [LY422825]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223090 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DCTD protein (Cat# [TP323090]). The protein was produced from HEK293T cells transfected with DCTD cDNA clone (Cat# RC223090) using MegaTran 2.0 (Cat# [TT210002]).