

Product datasheet for **RC210767**

DCK (NM_000788) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DCK (NM_000788) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DCK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210767 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCACCCCGCCAAGAGAAGCTGCCCGTCTTTCTCAGCCAGCTCTGAGGGGACCCGCATCAAGAAAA
TCTCCATCGAAGGGAACATCGCTGCAGGGAAGTCAACATTTGTGAATATCCTTAAACAATTGTGTGAAGA
TTGGGAAGTGGTTCCTGAACCTGTTGCCAGATGGTCAATGTTCAAAGTACTCAAGATGAATTTGAGGAA
CTTACAATGTCTCAGAAAAATGGTGGGAATGTTCTTCAGATGATGTATGAGAACTGAACGATGGTCTT
TTACCTTCAAACATATGCTTGTCTCAGTCAATAGAGCTCAGCTTGCCTCTCTGAATGGCAAGCTCAA
AGATGCAGAGAACTGTATTATTTTTTGAACGATCTGTGTATAGTGACAGGTATATTTTTGCATCTAAT
TTGTATGAATCTGAATGCATGAATGAGACAGAGTGGACAATTTATCAAGACTGGCATGACTGGATGAATA
ACCAATTTGGCCAAAGCCTTGAATTGGATGGAATCATTTATCTTCAAGCCACTCCAGAGACATGCTTACA
TAGAATATATTTACGGGGAAGAAATGAAGAGCAAGGCATTCTCTTGAATATTTAGAGAAGCTTCATTAT
AAACATGAAAGCTGGCTCCTGCATAGGACTGAAAACCAACTTCGATTATCTTCAAGAGGTGCCTATCT
TAACTGGATGTTAATGAAGACTTTAAGACAAATATGAAAGTCTGGTTGAAAAGGTCAAAGATTTTT
GAGTACTTTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

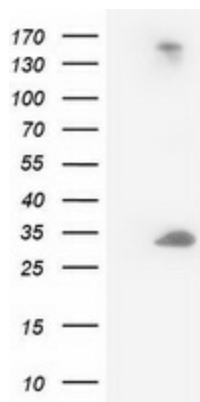


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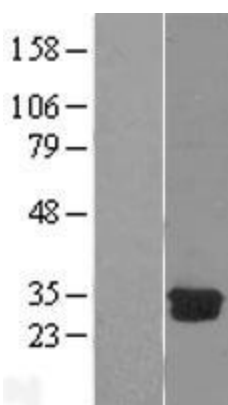
ORF Size:	780 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional 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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_000788.3
RefSeq Size:	2618 bp
RefSeq ORF:	783 bp
Locus ID:	1633
UniProt ID:	P27707
Cytogenetics:	4q13.3
Domains:	dNK
Protein Families:	Druggable Genome
Protein Pathways:	Purine metabolism, Pyrimidine metabolism
MW:	30.5 kDa

Gene Summary:

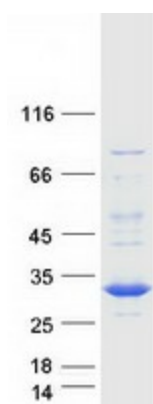
Deoxycytidine kinase (DCK) is required for the phosphorylation of several deoxyribonucleosides and their nucleoside analogs. Deficiency of DCK is associated with resistance to antiviral and anticancer chemotherapeutic agents. Conversely, increased deoxycytidine kinase activity is associated with increased activation of these compounds to cytotoxic nucleoside triphosphate derivatives. DCK is clinically important because of its relationship to drug resistance and sensitivity. [provided by RefSeq, Jul 2008]

Product images:


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DCK (Cat# RC210767, 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-DCK (Cat# [TA502698]). Positive lysates [LY400272] (100ug) and [LC400272] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400272]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210767 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DCK protein (Cat# [TP310767]). The protein was produced from HEK293T cells transfected with DCK cDNA clone (Cat# RC210767) using MegaTran 2.0 (Cat# [TT210002]).