

## Product datasheet for RC217395

### DNA2 (NM\_001080449) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DNA2 (NM_001080449) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DNA2
Synonyms:	DNA2L; hDNA2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217395 representing NM_001080449 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGACTCCCTGTATCCAGTCTAAGCAAGGGAGCAAAGGCAGGGGACAGAGCCCTGCTGCTCAGG  
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TATAGCAGAGCAGTTGAACAACAGATGGATTGTAGTTCAGTCCCAATTGTGATGCTGCCAAAATAGAAG  
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**Protein Sequence:** >RC217395 representing NM\_001080449  
 Red=Cloning site Green=Tags(s)

MKTPCIPSPKQGSKGRGQSPAAQVRGPTWNAPEGRPGAGHLGHLRVGACARGAQAARAFFPFLSFLCYP  
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 VQNKEGNCEKRLVITASQSLNKEKLCILRNDWCSVPVEPGDIHLEGDCTSDTWIIDKDFGYLILYDML  
 ISGTSIASSIRCRRRAVLSETRSSDPATRQMLIGTVLHEVFQKAINNSFAPEKLQELAFQTIQEIRHLK  
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 YLKTGQMPVPANHLDKRELLKLRNQMAFSLFHRISKSATRQKTQLASLPQIIIEEEKTKYCSQIGNCAL  
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 AKDTVACILKGLNKPQRQAMKKVLLSKDYTLIVGMPGTGKTTTICTLVRILYACGFVLLTSYTHSAVDN  
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 IFDFCIVDEASQISQPICLGPLFFSRRFVLVGDHQQPLPLVLRNREARALGMSSELFKRLEQNKSAVVQLT  
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 LNTDKVPAPEQVEKGGVSNVTEAKLIVFLTSIFVKAGCSPSDIGIAPYRQQLKIINDLLARSIGMVEVN  
 TVDKYQGRDKSIVLVSFVRSNKDGTGVELLKDWRRLNVAITRAKHLILLGCVPSLNCYPPLEKLLNHLN  
 SEKLIIDLPSREHESLCHILGDFQRE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6684\\_a07.zip](https://cdn.origene.com/chromatograms/mk6684_a07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

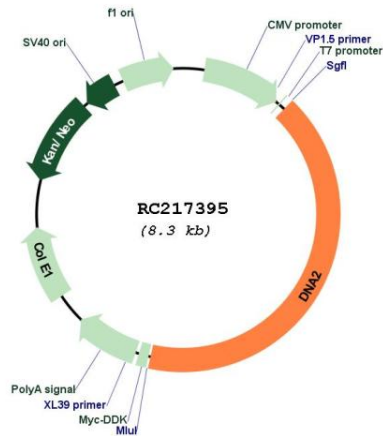


**ACCN:** NM\_001080449

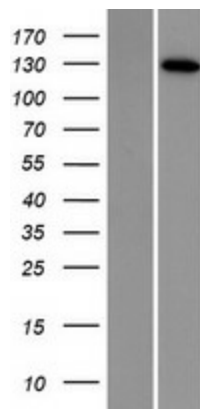
**ORF Size:** 3438 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001080449.1</a> , <a href="#">NP_001073918.1</a>
<b>RefSeq Size:</b>	4416 bp
<b>RefSeq ORF:</b>	3183 bp
<b>Locus ID:</b>	1763
<b>UniProt ID:</b>	<a href="#">P51530</a>
<b>Cytogenetics:</b>	10q21.3
<b>Protein Pathways:</b>	DNA replication
<b>MW:</b>	129.5 kDa
<b>Gene Summary:</b>	This gene encodes a member of the DNA2/NAM7 helicase family. The encoded protein is a conserved helicase/nuclease involved in the maintenance of mitochondrial and nuclear DNA stability. Mutations in this gene are associated with autosomal dominant progressive external ophthalmoplegia-6 (PEOA6) and Seckel syndrome 8. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Sep 2014]

Product images:



Circular map for RC217395



Western blot validation of overexpression lysate (Cat# [LY420707]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217395 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).