

## Product datasheet for **RC203407**

### Artemis (DCLRE1C) (NM\_022487) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Artemis (DCLRE1C) (NM_022487) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Artemis
Synonyms:	A-SCID; DCLREC1C; RS-SCID; SCIDA; SNM1C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC203407 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAGCATCAGGAGAGTTTTTATTTTCAGGGCAATAATGGAAGTGTCTGTACACAGGAGACTTCAGAT  
 TGGCGCAAGGAGAAGCTGCTAGAAATGGAGCTTCTGCACCTCCGGGGCAGAGTCAAAGACATCCAAAGTGT  
 ATATTTGGATACTACGTTCTGTGATCCAAGATTTACCAATTCCAAGTCGGGAGGAGTGTTTAAGTGGA  
 GTCTTAGAGCTGGTCCGAAGCTGGATCACTCGGAGCCCGTACCATGTTGTGTGGTGAAGTGCAGGAGCGG  
 CTTATGGCTATGAATATCTGTTACCAACCTTAGTGAAGAATTAGGAGTCCAGGTTTCATGTGAATAAGCT  
 AGACATGTTTAGGAACATGCCTGAGATCCTTCATCATCTCACAACAGACCCGCAACACTCAGATCCATGCA  
 TGCCGGCATCCCAAGGCAGAGGAATATTTTCAGTGGAGCAAATACCTGTGGAATTACTCCAGAAATA  
 GAATCCACTCCACATAATCAGCATTAAAGCATCCACCATGTGGTTTGGAGAAAGGAGCAGAAAAACAAA  
 TGTAATTGTGAGGACTGGAGAGAGTTCATACAGAGCTTGTTCCTTTCTTCTACTCCTCTACAGTGAGATT  
 AAAGATTTCTTGAGCTACCTCTGTCTGTGAACGCATATCCAAATGTCATTCCAGTTGGCACAACACTATGG  
 ATAAAGTTGTGCGAAATCTTAAAGCCTTTATGCCGGTCTTCCCAAAGTACGGAGCCAAAGTATAAACCCT  
 GGGAAAATGAAGAGAGCTAGAACAGTTACCCGAGACTCAGAGGAGGAAGATGACTATCTCTTTGATGAT  
 CCTCTGCCAATACCTTTAAGGCACAAAGTTCATACCCGAAACTTTTCCACCTGAGGATTTTTCAATGA  
 CTGCAGTATCAGAAAAGCAGCCTGAAAACTGAGACAAACCCAGGATGCTGCAGAGCAGAGTGTATGCA  
 GAGCTCTCGTTTCAAACTTTGTAGATTGTGAAGAATCCAACAGTGAAGTGAAGAAGAAGTAGGAATC  
 CCAGTCTACTGCAAGGAGATCTGGGCTGTACTTCACTGCAAAAGGCTGATGGGGATGTACCCCACT  
 GGAAGTATTCTTTAAAGAAATGATGAAATCACAGATGAGAGTTGGAAAACTCCCTCTCCACAGT  
 GGCAGGGGATCTCAGTACCAAAGCTTTTCAGTGAAGTCTGATGGAGAATCAACTCACATCTCTCCCCAG  
 AATTCCTCCAGTCAACACACATAACAGAAACAGGAAGTCAAGGCTGGGACAGCCAACTGATACTGTTT  
 TGTATCTTCCAAAGAGAGAAACAGTGGGGATTTACTTCTTGGACAAAGCTGACTACAGACCAACAAT  
 CAAAGAGAATATCTGCCTCTCTCATGGAACAAATGTAATTTGCCAAAGGATACTTACTCTGATTTG  
 AAAAGCAGAGATAAAGATGTGACAATAGTTCTAGTACTGGAGAACCAACTACTTAAGCAGTGAGACAC  
 ATATACCCGAGGAAAAAGTTTGTAACTTAGCACAAATGCAGATCCAGAGCTCTTCTGATTTTGA  
 AGTTCCCTCAACTCCAGAAGCTGAGTTACCTAAACGAGAGCATTACAATATTTATATGAGAAGCTGGCA  
 ACTGGTGAGAGTATAGCAGTCAAAAAAGAAAATGCTCACTCTTAGATACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC203407 protein sequence  
 Red=Cloning site Green=Tags(s)

MKHQERFLFQGNNGTVLYTDFRLAQGEAARMELLHSGGRVKDIQSVYLDTTFCDPFRFYQIPSREECLSG  
 VLELVRSWITRSPYHVWLNCKAAYGYEYLFNLSEELGVQVHVNKLDMFRNMPPEILHHLTDRNTQIHA  
 CRHPKAEYFQWSKLPAGITSRNRIPLHIISIKPSTMWFGERSRKTNVIVRTGESSYRACFSFHSSYSEI  
 KDFLSYLCPVNAYPNVIPVGTMDKVVEILKPLCRSSQSTEPKYKPLGKLRARTVHRDSEEDDYLFD  
 PLPIPLRHKVPYPETFHPEVFSMTAVSEKQPEKLRQTPGCCRAECMQSSRF TNFVDCESNSESEEEVGI  
 PASLQGDLSVLHLQKADGDVPQWEVFFKRNDITDESLENFSSSTVAGGSQSPKLFSDSDGESTHISQ  
 NSSQSTHITTEQGSQGWSDTQVLLSSQERNSGDITSLDKADYRPTIKENIPASLMEQNVICPKDYS  
 KSRDKDVTIVPSTGEPTLSSETHIPEEKSLNLSNADSQSSDFEVPSTPEAELPKREHLQYL YEKLA  
 TGESIAVKKRKC SLLDT

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6128\\_g04.zip](https://cdn.origene.com/chromatograms/mk6128_g04.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_022487

**ORF Size:** 1731 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\\_022487.4](#)

**RefSeq Size:** 6242 bp

**RefSeq ORF:** 1734 bp

**Locus ID:** 64421

**UniProt ID:** [Q96SD1](#)

**Cytogenetics:** 10p13

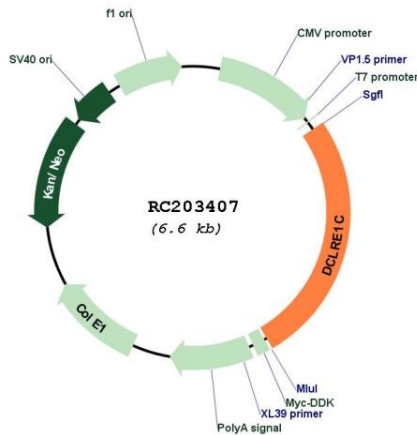
**Protein Families:** Druggable Genome

**Protein Pathways:** Cell cycle, Non-homologous end-joining, Primary immunodeficiency

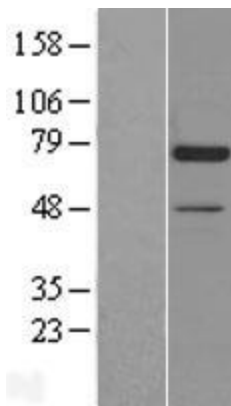
**MW:** 65.3 kDa

**Gene Summary:** This gene encodes a nuclear protein that is involved in V(D)J recombination and DNA repair. The encoded protein has single-strand-specific 5'-3' exonuclease activity; it also exhibits endonuclease activity on 5' and 3' overhangs and hairpins. The protein also functions in the regulation of the cell cycle in response to DNA damage. Mutations in this gene can cause Athabaskan-type severe combined immunodeficiency (SCIDA) and Omenn syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]

**Product images:**



Circular map for RC203407



Western blot validation of overexpression lysate (Cat# [LY402945]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203407 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).