

## Product datasheet for **RG203407**

### 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:	TurboGFP
Symbol:	Artemis
Synonyms:	A-SCID; DCLREC1C; RS-SCID; SCIDA; SNM1C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG203407 representing NM\_022487  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAGCATCAGGAGAGGTTTTTATTTTCAGGGCAATAATGGAAGTGTCTGTACACAGGAGACTTCAGT  
 TGGCGCAAGGAGAAGCTGCTAGAAATGGAGCTTCTGCACCTCCGGGGCAGAGTCAAAGACATCCAAAGTGT  
 ATATTTGGATACTACGTTCTGTGATCCAAGATTTTACCAATTCCAAGTCGGGAGGAGTGTTTAAGTGGA  
 GTCTTAGAGCTGGTCCGAAGCTGGATCACTCGGAGCCCGTACCATGTTGTGTGGCTGAACTGCAAAGCGG  
 CTTATGGCTATGAATATCTGTTCAACAACCTTAGTGAAGAATTAGGAGTCCAGGTTTCATGTGAATAAGCT  
 AGACATGTTTAGGAACATGCCTGAGATCCTTCATCATCTCACAACAGACCCGCAACACTCAGATCCATGCA  
 TGCCGGCATCCCAAGGCAGAGGAATATTTTCAGTGGAGCAAATACCTGTGGAATTACTCCAGAAATA  
 GAATCCACTCCACATAATCAGCATTAAAGCATCCACCATGTGGTTTGGAGAAAGGAGCAGAAAAACAAA  
 TGTAATTGTGAGGACTGGAGAGAGTTCATACAGAGCTTGTTCCTTTTCTTCTACTCCTCCTACAGTGAGATT  
 AAAGATTTCTTGACTACCTCTGTCTGTGAACGCATATCCAAATGTCATTCCAGTTGGCACAACACTATGG  
 ATAAAGTTGTGCGAAATCTTAAAGCCTTTATGCCGGTCTTCCCAAAGTACGGAGCCAAAGTATAAACCCT  
 GGGAAAATGAAGAGAGCTAGAACAGTTACCCGAGACTCAGAGGAGGAAGATGACTATCTCTTTGATGAT  
 CCTCTGCCAATACCTTTAAGGCACAAAGTTCATACCCGAAACTTTTCCACCTGAGGATTTTTCAATGA  
 CTGCAGTATCAGAAAAGCAGCCTGAAAACTGAGACAAACCCAGGATGCTGCAGAGCAGAGTGTATGCA  
 GAGCTCTCGTTTCAAACTTTGTAGATTGTGAAGAATCCAACAGTGAAGTGAAGAAGAAGTAGGAATC  
 CCAGTTCCTACTGCAAGGAGATCTGGGCTGTACTTCACTGCAAAAGGCTGATGGGGATGTACCCACAGT  
 GGAAGTATTCTTTAAAAGAAATGATGAAATCACAGATGAGAGTTTGGAAAACTCCCTCCTCCACAGT  
 GGCAGGGGATCTCAGTACCAAAAGCTTTTCAGTGAAGTCTGATGGAGAATCAACTCACATCTCCTCCAG  
 AATTCCTCCAGTCAACACACATAACAGAACAAGGAAGTCAAGGCTGGGACAGCCAACTGATACTGTTT  
 TGTATCTTCCAAAGAGAGAAAAGTGGGATATTACTTCTTGGACAAAGCTGACTACAGACCAACAAT  
 CAAAGAGAATATCTGCCTCTCTCATGGAACAAAATGTAATTTGCCAAAGGATACTTACTCTGATTTG  
 AAAAGCAGAGATAAAGATGTGACAATAGTTCTAGTACTGGAGAACCAACTACTTAAGCAGTGAGACAC  
 ATATACCCGAGGAAAAAGTTTGTAACTTAGCACAAATGCAGATCCAGAGCTCTTCTGATTTTGA  
 AGTTCCCTCAACTCCAGAAGCTGAGTTACCTAAACGAGAGCATTACAATATTTATATGAGAAGCTGGCA  
 ACTGGTGAGAGTATAGCAGTCAAAAAAGAAAATGCTCACTCTTAGATACC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG203407 representing NM\_022487  
 Red=Cloning site Green=Tags(s)

MKHQERFLFQGNNGTVLYTGFRLAQGEAARMELLHSGGRVKDIQSVYLDTTFCDFRPFYQIPSREECLSG  
 VLELVRSWITRSPYHVWLNCKAAYGYEYLFNLSEELGVQVHVNKLDMFRNMPPEILHHLTDRNTQIHA  
 CRHPKAEYFQWSKLPBGITSRNRIPLHIISIKPSTMWFGERSRKTNVIVRTGESSYRACFSFHSSYSEI  
 KDFLSYLCPVNAYPNVIVPGTTMDKVVVILKPLCRSSQSTEPKYKPLGKLRARTVHRDSEEDDYLFDD  
 PLPIPLRHKVPYPETFHPEVFSMTAVSEKQPEKLRQTPGCCRAECMQSSRFNFDVEESNSESEEEVGI  
 PASLQGDLSVLHLQKADGDVPQWEVFKRNDITDESLENFSSVAGGSQSPKLFSDSDGESTHISSQ  
 NSSQSTHITTEQGSQWDSQSDTVLLSSQERNSGDITSLDKADYRPTIKENIPASLMEQNVICPKDYSDL  
 KSRDKDVTIVPSTGEPTLSSETHIPEEKSLNLSNADSQSSDFEVPSTPEAELPKREHLQYL YEKLA  
 TGESIAVKKRKCSSLDT

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**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:** 3645 bp

**RefSeq ORF:** 1734 bp

**Locus ID:** 64421

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

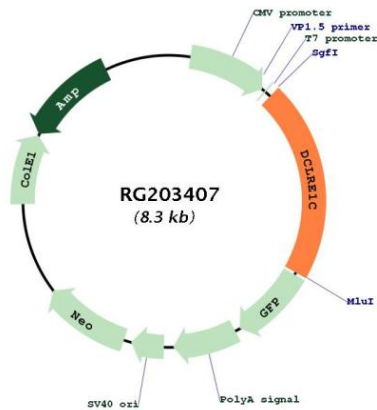
**Cytogenetics:** 10p13

**Protein Families:** Druggable Genome

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

**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 RG203407