

## Product datasheet for **RG238960**

### Artemis (DCLRE1C) (NM\_001289078) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Artemis (DCLRE1C) (NM_001289078) 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:**

>RG238960 representing NM\_001289078.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGAAGCATCAGGAGAGGTTTTTTATTTACAGGCAATAATGGAAGTGTCTGTACACAGGAGACTTCAGA
TTGGCGCAAGGAGAAGCTGCTAGAATGGAGCTTCTGCACCTCCGGGGCAGAGTCAAAGACATCCAAAGT
GTATATTTGGATACTACGTTCTGTGATCCAAGATTTTACCAAATTCGAAGTCGGGAGGAGTGTAAAGT
GGAGTCTTAGAGCTGGTCCGAAGCTGGATCACTCGGAGCCGTACCATGTTGTGTGGCTGAACTGCAAAA
GCGGCTTATGGCTATGAATATCTGTTCCACCAACCTTAGTGAAGAATTAGGAGTCCAGGTTTCATGTGAAT
AAGCTAGACATGTTTAGGAACATGCCTGAGATCCTTCATCATCTCACAACAGACCGCAACACTCAGATC
CATGCATGCCGGCATCCCAAGGCAGAGGAATATTTTCAGTGGAGCAAATACCCTGTGGAATTACTTCC
AGAAATAGAATCCACTCCACATAATCAGCATTAAAGCCATCCACCATGTGGTTTGGAGAAAGGAGCAGA
AAAACAAATGAATTGTGAGGACTGGAGAGAGTTCATACAGAGCTGTTTTTCTTTCACTCCTCCTAC
AGTGAGATTAAGATTTCTTGAGCTACCTGTCTGTGAACGCATATCCAAATGCATTCCAGTTGGC
ACAACTATGGATAAAGTTGTGCAAAATCTTAAAGCCTTTATGCCGGTCTTCCCAAAGTACGGAGCCAAAG
TATAAACCCTGGGAAAACCTGAAGAGAGCTAGAACAGTTCACCGAGACTCAGAGGAGGAAGTACTAT
CTCTTTGATGATCCTCTGCCAATACCTTTAAGGCACAAAGTTCATACCCGAAAACCTTTTACCCTGAG
GTATTTTCAATGACTGCAGTATCAGAAAAGCAGCCTGAAAACTGAGACAAAACCCAGGATGCTGCAGA
GCAGAGTGTATGCAGAGCTCTCGTTTACAAAACCTTTGTAGATTGTGAAGAATCCAACAGTAAAGTGAA
GAAGAAGTAGGAATCCCAGCTTCACTGCAAGGAGATCTGGGCTCTGTACTTACCTGCAAAAAGGCTGAT
GGGGGTACCCAGTGGGAAGTATTCTTTAAAAGAAATGATGAAATCACAGATGAGAGTTTGGAAAAAC
TTCCCTTCTCCACAGTGGCAGGGGATCTCAGTCACCAAAGCTTTTTCAGTACTGATGAGGAGAATCA
ACTCACATCTCCTCCAGAATTCTCCAGTCAACACACATAACAGAACAAGGAAGTCAAGGCTGGGAC
AGCCAATCTGATACTGTTTTGTTATCTTCCCAAGAGAGAAAACAGTGGGGATATTACTTCTTGGACAAA
GCTGACTACAGACCAACAATCAAAGAGAATATTCTGCCTCTCTCATGGAACAAAATGTAATTTGCCCA
AAGGATACTTACTCTGATTTGAAAAGCAGAGATAAAGATGTGACAATAGTTCCTAGTACTGGAGAACCA
ACTACTTAAGCAGTGAACACATATACCCGAGGAAAAAAGTTTGCTAAATCTTAGCACAAATGCAGAT
TCCCAGAGCTCTCTGATTTTGAAGTTCCTCACTCCAGAAGCTGAGTTACCTAAACGAGAGCATTTA
CAATATTTATATGAGAAGCTGGCAACTGGTGAAGTATAGCAGTCAAAAAAGAAAATGCTCACTCTTA
GATACC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

**Protein Sequence:**

>Peptide sequence encoded by RG238960  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MKHQERFLFQNGTIVLYTDFRLAQGEARMELLHSGGRVKDIQSVYLDTTFCDFRYQIPSRRECLS
GVLELVRSWITRSPYHVWLNCKAAYGYEYLFNLSEELGVQVHVNKLDMFRNMPEILHHLTTDRNTQI
HACRHPKAEYFQWSKLPKGITSRNRIPLHIISIKPSTMWFGERSRKTNIIVRTGESSYRACFSHSSY
SEIKDFLSYLCPVNAYPNVIPVGTMDKVVEILKPLCRSSQSTEPKYKPLGKLRARTVHRDSEEDDY
LFDDPLPIPLRHKVPYPETFHPEVFSMTAVSEKQPEKLRQTPGCCRAECMQSSRFNFDVCEESNSESE
EEVGIPASLQDGLGVLHLQKADGDVPPQWEVFFKRNDIETDESLENFSSVAGGSQSPKLFSDSDGES
THISSQSSQSTHITEQGSQGWDSQSDTVLLSSQERNSGDITSLDKADYRPTIKENIPASLMEQNVICP
KDTYSDLKSRDKDVTIVPSTGEPTLSSETHIPEEKSLNLSSTNADSQSSDFEVPSTPEALPKREHL
QYLYEKLATGESIAVKKRKCSSLDT
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:**

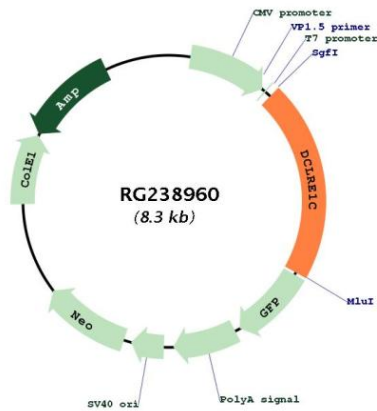
SgfI-MluI

**Cloning Scheme:**


- ACCN:** NM\_001289078
- 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).
- RefSeq:** [NM\\_001289078.2](#)
- RefSeq Size:** 6190 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 RG238960