

Product datasheet for **RC228068**

Twinkle (TWNK) (NM_001163814) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Twinkle (TWNK) (NM_001163814) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: TWNK
Synonyms: ATXN8; C10orf2; IOSCA; MTDPS7; PEO; PEO1; PEOA3; PRLT55; SANDO; SCA8; TWINL
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC228068 representing NM_001163814
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGCTGACACAGTTTGCCGAGGGGCGGCTGGAAGATCAACTGGACAAATATGATCACTGGGCTGACCGCT
TTGAGGACCTGCCCTCTATTTTCATGACTTTCCATGGACAGCAAAGCATCAGGACTGTAATAGATACAAT
GCAACATGCAGTCTACGTCTATGACATTTGTCATGTGATCATCGACAACCTGCAGTTCATGATGGGTCAC
GAGCAGCTGTCCACAGACAGGATCGCAGCTCAAGACTACATCATCGGGGTCTTTCGGAAGTTTGCAACAG
ACAATAACTGCCATGTGACACTGGTCATTACCCCCGAAAGAGGATGATGACAAGGAAGTGCAGACAGC
GTCCATTTTGGCTCAGCCAAAGTGAGTGGCCTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC228068 representing NM_001163814
Red=Cloning site Green=Tags(s)
MLTQFAEGRLEDQLDKYDHWADRFEDLPLYFMTFHGQQSIRTVIDTMQHAYVYVDICHVIIDNLQFMMGH
EQLSTDRIAAQDYIIGVFRKFATDNNCHVTLVIHPRKEDDDKELQTASIFGSAKVSGL

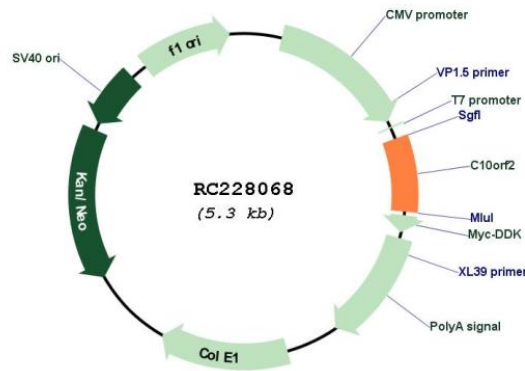
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI



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Cloning Scheme:

Plasmid Map:

ACCN:

NM_001163814

ORF Size:

384 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:	<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:	<u>NM_001163814.2</u>
RefSeq ORF:	387 bp
Locus ID:	56652
Cytogenetics:	10q24.31
Protein Families:	Druggable Genome
MW:	14.7 kDa
Gene Summary:	This gene encodes a hexameric DNA helicase which unwinds short stretches of double-stranded DNA in the 5' to 3' direction and, along with mitochondrial single-stranded DNA binding protein and mtDNA polymerase gamma, is thought to play a key role in mtDNA replication. The protein localizes to the mitochondrial matrix and mitochondrial nucleoids. Mutations in this gene cause infantile onset spinocerebellar ataxia (IOSCA) and progressive external ophthalmoplegia (PEO) and are also associated with several mitochondrial depletion syndromes. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Aug 2009]