

Product datasheet for **RC228769**

Twinkle (TWNK) (NM_001163813) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Twinkle (TWNK) (NM_001163813) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Twinkle
Synonyms:	ATXN8; C10orf2; IOSCA; MTDPS7; PEO; PEO1; PEOA3; PRLT55; SANDO; SCA8; TWINL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC228769 representing NM_001163813
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGC**C

ATGTTTGGCCTTACCAAGGTTACAGATGACACACTCAAGCGTTTCAGTGTGCGATATCTGCGACCTGCTC
 GCAGTCTTGTCTTCCCTTGGTTCTCCCTGGGGGCTCAGGATTACGAGGCTGAAGCTCCTAGAGGCTAA
 ATGCCAGGGGATGGAGTGAGCTACGAGGAAACCACTATTCCCCGACCCAGCGCTACCACAATCTGTTT
 GGATTACCACTGATTAGTCGTCGAGATGCTGAGGTGGTACTGACGAGTCGTGAGCTTGACAGCCTGGCCT
 TGAACCACTCCACGGGGCTGCCTACCCTTACTCTACCCGAGGAACGACCTGCTTACCCCTGCCTTACT
 CCCTTACCTGGAACAGTTCGGCGGATTGTATTCTGGTTGGGGGATGACCTTCGGTCTGGGAAGCCGCC
 AAGTTGTTTGACGAAACTGAACCCAAACGATGCTTCTTGGTGCAGCAGGAGACCAGCAACCCCGTC
 CCCTGGAGGCCCTGAACGGAGGCTTCAATCTTCTCGTATTCTTCGTACCGCCCTGCCTGCCTGGCACA
 GTCCATCGTATCTTCCGGCAGCTTCGGGAGGAGGTGCTAGGAGAACTGTCAAATGTGGAGCAAGCAGCT
 GGCTCCGCTGGAGCCGCTTCCAGACCTCAATCGTATCTTGAAGGGACATCGAAAGGGCGAGCTGACGG
 TCTTCACAGGGCCAACAGGCAGTGGAAAGACGACATTCATCAGTGAATATGCCCTGGATTGTGTTCCCA
 GGGGTGAACACACTGTGGGTAGCTTCGAGATCAGCAATGTGAGACTAGCCCGGCTCATGCTGACACAG
 TTTGCCGAGGGGGCGCTGGAAGATCAACTGGACAAATATGATCACTGGGTGACCGCTTTGAGGACCTGC
 CCCTCTATTTTCATGACTTTCATGGACAGCAAAGCATCAGGACTGTAATAGATACAATGCAACATGCAGT
 CTACGCTATGACATTTGTCATGTGATCATCGACAACCTGCAGTTCATGATGGGTACGAGCAGCTGTCC
 ACAGACAGGATCGCAGCTCAAGACTACATCATCGGGTCTTTCGGAAGTTTGCAACAGACAATAACTGCC
 ATGTGACACTGGTCATTCACCCCGGAAAGAGGATGATGACAAGGAACTGCAGACAGCGTCCATTTTGG
 CTCAGCCAAAGCAAGCCAGGAAGCAGACAATGTTCTGATCCTGCAGGACAGGAAGCTGGTAACCGGGCCA
 GGGAAACGGTATCTGCAGGTGTCCAAGAACCGCTTTGATGGAGATGTAGGTGTCTTCCCGCTTGAGTTCA
 ACAAGAACTCCCTCACCTTCTCCATTCCACAAAGAACAAGGCCCGGCTCAAGAAGATCAAGGATGACAC
 TGGACCACTGGCCAAAAGCCCTCTTCTGGCAAAAAGGGGGCTACGACACAGAACTCTGAGATTGCTCA
 GGCCAGGCCCCCACTCCCGACCGCCAGACACCTCCAAGCGTTCAAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC228769 representing NM_001163813
 Red=Cloning site Green=Tags(s)

MFGLTKVTDLTKRFSVRYLRPARSLVFPWFSPGGSLRGLKLLLEAKCQGDGVSYEETTIPRPSAYHNLF
 GLPLISRDAEVVLTSLREDSLALNQSTGLPTLTLPRGTTCLPPALLPYLEQFRRIVFWLGDDLRSWEAA
 KLFARKLNPKRCFLVRPGDQPPRPLEALNGGFNLSRILRTALPAWHKSIVSFRQLREEVLGELSNVEQAA
 GLRWSRFPDLNRILKGHRKGELTVFTGPTGSGKTTFISEYALDLCSQGVNTLWGSFEISNVRLARVMTQ
 FAEGRLDQLDKYDHWADRFEDLPLYFMTFHGQQSIRTVIDTMQHAVVYVDICHVIIIDNLQFMMGHEQLS
 TDRIAAQDYIIGVFRKFATDNNCHVTLVHPRKEDDDKELQTASIFGSAKASQEADNVILQDRKLVTPG
 GKRYLQVSKNRFDDGVGFPLEFNKNSLTFISPPKNKARLKKIKDDTGPVAKKPSSGKKGATTQNSEICS
 GQAPTPDQPDTSKRSK

TRTRPLE**QKL**ISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001163813

ORF Size: 1518 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001163813.1](#), [NP_001157285.1](#)

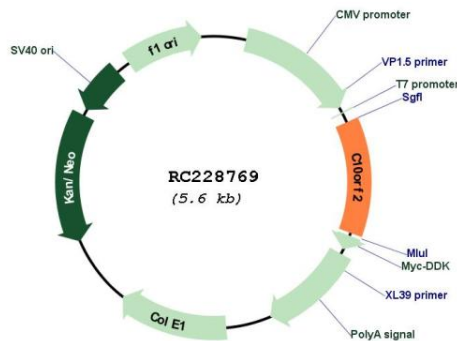
RefSeq Size: 1800 bp

RefSeq ORF: 693 bp

Locus ID: 56652

Cytogenetics:	10q24.31
Protein Families:	Druggable Genome
MW:	57 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]

Product images:



Circular map for RC228769