

## Product datasheet for **SC314422**

### Twinkle (TWNK) (AF292004) Human Untagged Clone

#### Product data:

|               |                                                                    |
|---------------|--------------------------------------------------------------------|
| Product Type: | Expression Plasmids                                                |
| Product Name: | Twinkle (TWNK) (AF292004) Human Untagged Clone                     |
| Tag:          | Tag Free                                                           |
| Symbol:       | Twinkle                                                            |
| Synonyms:     | ATXN8; IOSCA; MTDPS7; PEO; PEO1; PEOA3; PRLTS5; SANDO; SCA8; TWINL |
| Vector:       | <u>pCMV6 series</u>                                                |



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| <b>Fully Sequenced ORF:</b> | <p>&gt;NCBI ORF sequence for AF292004, the custom clone sequence may differ by one or more nucleotides</p> <pre> ATGTGGGTCTCTCCGAAGTGGGTACCCCTCCGTATCTTGTTACCCCTGCGTGGGGAG TGGATGGGTGGGAGGGGCTGCCCCGAACTTGGCCCCAGGCCCTCTCGCAGACGTTAC AGGAAGGAGACTCTCAAGCCTTGGATATGCCAGTGTTCCTGTAAGTCAACTGAAATC CGCCAGTATTTGCGGGGCGATGGGATCCCCTTCCAGGATGGTACAGTTGCCTGCGGGCA CTGAGCCCCCTTGCAGAGTCTTACAGCTCAAAGGCCAGACTGGTGTACCACTTCCTTC AGCCTCTTCATTGACAAGACCACAGGCCACTTTCTCTGCATGACCAGCCTAGCAGAAGGG AGCTGGGAAGACTTCCAGGCCAGCGTGGAGGGGCGAGGGGATGGGGCCAGGGAGGGGTTT CTGCTTAGCAAGGCACCAGAATTTGAGGACAGCGAGGAGGTCCGGAGGATCTGGAACCGA GCAATACCTCTCTGGGAGCTGCCTGATCAGGAGGAGGTTACAGTGGCTGATACAATGTTT GGCCTTACCAAGGTTACAGATGACACACTCAAGCGTTTCAGTGTGCGATATCTGCGACCT GCTCGCAGTCTTGCTTCCCTTGGTTCTCCCTGGGGGCTCAGGATTACGAGGCCTGAAG CTCCTAGAGGCTAAATGCCAGGGGGATGGAGTGAGCTACGAGGAAACCACTATCCCCGA CCCAGCGCTACCAATCTGTTTGGATTACCACTGATTAGTCGTCGAGATGCTGAGGTG GTACTGACGAGTCGTGAGCTTGACAGCCTGGCCTTGAACCACTCCACGGGCTGCCTACC CTTACTCTACCCGAGGAACGACCTGCTTACCCCTGCCTTACTCCCTTACCTGGAACAG TTCCGGCGGATTGATTCTGTTGGGGGATGACCTTCGGTCTGGGAAGCCGCCAAGTTG TTTGCACGAAAACGAACCCCAACGATGCTTCTTGGTGCAGCAGGAGACCAAGCAACCC CGTCCCCTGGAGGCCCTGAACGGAGGCTCAATCTTCTCGTATTCTTCGTACCGCCCTG CCTGCCTGGCACAAGTCCATCGTATCTTCCGGCAGCTTCGGGAGGAGGTGCTAGGAGAA CTGTCAAATGTGGAGCAAGCAGCTGGCTCCGCTGGAGCCGCTTCCAGACCTCAATCGT ATCTTGAAGGGACATCGAAAGGGCGAGCTGACGGTCTTACAGGGCCAACAGGCAGTGGA AAGACGACATTCATCAGTGAGTATGCCCTGGATTGTGTTCCAGGGGGTGAACACACTG TGGGGTAGCTTCGAGATCAGCAATGTGAGACTAGCCCGGTGCTGCTGACACAGTTTGCC GAGGGGCGGCTGGAAGATCAACTGGACAAATATGATCACTGGGCTGACCGCTTTGAGGAC CTGCCCCCTATTTTCATGACTTTCCATGGACAGCAAAGCATCAGGACTGTAATAGATACA ATGCAACATGCAGTCTACGTCTATGACATTTGTCATGTGATCATCGACAACCTGCAGTTC ATGATGGGTACGAGCAGCTGTCCACAGACAGGATCGCAGCTCAAGACTACATCATCGGG GTCTTTTGGGAAGTTTGAACAGACAATAACTGCCATGTGACACTGGTCATTACCCCCGG AAAGAGGATGATGACAAGGAAGTGCAGACAGCGTCCATTTTGGCTCAGCCAAAGCAAGC CAGGAAGCAGACAATGTTCTGATCCTGCAGGACAGGAAGCTGGTAACCGGGCCAGGGAAA CGGTATCTGCAGGTGTCCAAGAACCGCTTTGATGGAGATGTAGGTGTCTTCCCGCTTGAG TTCAACAAGAAGTCCCTCACCTTCTCCATTCCACCAAAGAACAAGGCCCGGCTCAAGAAG ATCAAGGATGACACTGGACAGTGGCCAAAAGCCCTCTTCTGGCAAAAAGGGGGCTACG ACACAGAACTCTGAGATTTGCTCAGGCCAGGCCCACTCCCAGCCAGACACCTCC AAGCGTTCAAAG </pre> |
| <b>Restriction Sites:</b>   | Please inquire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ACCN:</b>                | AF292004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>OTI Disclaimer:</b>      | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>OTI Annotation:</b>      | This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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| <b>Components:</b>            | 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).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>                                                                                                                                                                     |
| <b>RefSeq:</b>                | <u><a href="#">AF292004.1, AAK69558.1</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>RefSeq Size:</b>           | 2240 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>RefSeq ORF:</b>            | 2240 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Locus ID:</b>              | 56652                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Cytogenetics:</b>          | 10q24.31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Protein Families:</b>      | Druggable Genome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Gene Summary:</b>          | <p>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]</p> |