

Product datasheet for **SC323271**

DNA Polymerase gamma (POLG) (NM_001126131) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: DNA Polymerase gamma (POLG) (NM_001126131) Human Untagged Clone
Tag: Tag Free
Symbol: DNA Polymerase gamma
Synonyms: MDP1; MIRAS; MTDP54A; MTDP54B; PEO; POLG1; POLGA; SANDO; SCAE
Vector: pCMV6 series
Fully Sequenced ORF: >NCBI ORF sequence for NM_001126131, the custom clone sequence may differ by one or more nucleotides

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ATGAGCCGCTGCTCTGGAGGAAGGTGGCCGGCCACCCTCGGGCCAGGGCCGGTTCCA
GCTCCGGGGCGCTGGGTCTCCAGCTCCGTCCCCCGCTCCGACCCAGCGACGGGCAGCGG
CGGCGGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAGCAGCCTCAGCAGCCGCAA
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GACGACCTGCATGGACCCCGGGCCCCAGCCTCCTCAGCCTGCAGATGCGGGTCACACCT
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 AGTGCAGTCGATATTGACCGGTGCCTCAGGAAGGAAGTACCATGGATTGTAACCCCT
 TCCAACCAACTGGGATGAAAGGAGATACGGGATTCGCCAGGTTGAAGCGCTGGATATT
 TACCAGATAATTGAACTACCAAAGGCTCCTTGGAAAAACGAAGCCAGCCTGGACCA

Restriction Sites:

Please inquire

ACCN:

NM_001126131

OTI Disclaimer:

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).

OTI Annotation:

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.

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_001126131.1](#), [NP_001119603.1](#)

RefSeq Size: 4452 bp

RefSeq ORF: 3720 bp

Locus ID: 5428

UniProt ID: [P54098](#)

Cytogenetics: 15q26.1

Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways

Gene Summary: Mitochondrial DNA polymerase is heterotrimeric, consisting of a homodimer of accessory subunits plus a catalytic subunit. The protein encoded by this gene is the catalytic subunit of mitochondrial DNA polymerase. The encoded protein contains a polyglutamine tract near its N-terminus that may be polymorphic. Defects in this gene are a cause of progressive external ophthalmoplegia with mitochondrial DNA deletions 1 (PEOA1), sensory ataxic neuropathy dysarthria and ophthalmoparesis (SANDO), Alpers-Huttenlocher syndrome (AHS), and mitochondrial neurogastrointestinal encephalopathy syndrome (MNGIE). Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Both variants encode the same protein.