

Product datasheet for **RC204456**

DNA Polymerase gamma (POLG) (NM_002693) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DNA Polymerase gamma (POLG) (NM_002693) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DNA Polymerase gamma
Synonyms:	MDP1; MIRAS; MTDPS4A; MTDPS4B; PEO; POLG1; POLGA; SANDO; SCAE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204456 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence: >RC204456 protein sequence
 Red=Cloning site Green=Tags(s)

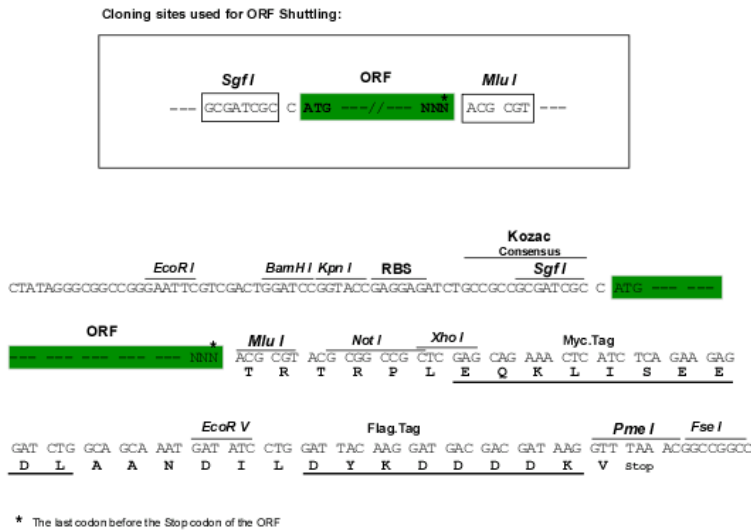
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Chromatograms: https://cdn.origene.com/chromatograms/mk6821_d02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

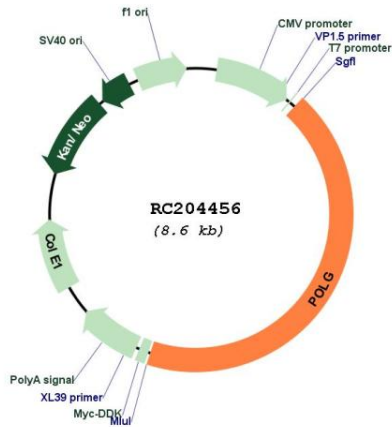


ACCN: NM_002693

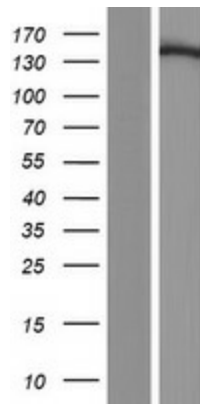
ORF Size: 3717 bp

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:	NM_002693.3
RefSeq Size:	4464 bp
RefSeq ORF:	3720 bp
Locus ID:	5428
UniProt ID:	P54098
Cytogenetics:	15q26.1
Domains:	DNA_pol_A
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways
MW:	139.6 kDa
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]

Product images:



Circular map for RC204456



Western blot validation of overexpression lysate (Cat# [LY426664]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC226368] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).