

Recombinant Human POLG

POLG-28364TH Human

Lot. No. (See product label)

Specification

Product Overview

Recombinant fragment of Human DNA Polymerase gamma with an N terminal proprietary tag; predicted mwt: 37.73 inclusive of tag.

Description

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.

Protein length

110 amino acids

Molecular Weight

37.730kDa inclusive of tags

Source

Wheat germ

Form

Liquid

Purity

Proprietary Purification

Storage buffer

pH: 8.00 Constituents: 0.79% Tris HCl, 0.3% Glutathione

Storage

Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.

Sequences of amino acids

CISIHDEVRYLVREEDRYRAALALQITNLLTRCMFAYKLG
LNDLPQSVAFFSAVDIDRCLRKEVTMDCKTPSNPTGMERR
YGIPQGEALDIYQIIELTKGSLEKRSQPGP

Sequence Similarities

Belongs to the DNA polymerase type-A family.

Gene Information

Gene Name

[POLG polymerase \(DNA directed\), gamma \[Homo sapiens \]](#)

Official Symbol

[POLG](#)

Synonyms

POLG; polymerase (DNA directed), gamma; DNA polymerase subunit gamma-1; POLG1; POLGA;

Gene ID

[5428](#)

mRNA Refseq

[NM_001126131](#)

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Protein Refseq [NP_001119603](#)

MIM [174763](#)

Uniprot ID [P54098](#)

Chromosome Location 15q24

Pathway DNA polymerase gamma complex, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Nucleotide Metabolism, organism-specific biosystem;

Function DNA binding; DNA-directed DNA polymerase activity; chromatin binding; exonuclease activity; nucleotidyltransferase activity;

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