**AscentGene, Inc.**

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# Recombinant Human DNA Polymerase gamma 1

| Catalog Number | Size |
|---|---|
| AG322-10 | 10μg |
| AG322-25 | 25μg |
| AG322-B | Bulk |

## *Specifications and Use*

**Description**

Recombinant human DNA polymerase gamma 1 (POLG1) was expressed in Sf9 cells and purified by an affinity column in combination of other chromatograph methods. The resulted protein is a monomeric polypeptide of 1251 (1239+12) amino acids with a 6His tag at the C-terminus. It migrates in SDS-PAGE with an apparent molecular mass of 145kDa.

MSRLLWRKVAGATVGPGPVPAPGRWVSSSVPASDPSDGQRRRQQQQQQQQ
QQQQQPQQPQVLSSEGGQLRHNPLDIQMLSRGLHEQIFGQGGEMPGEAAV
RRSVEHLQKHGLWGQPAVPLPDVELRLPPLYGDNLDQHFRLLAQKQSLPY
LEAANLLLQAQLPPKPPAWAWAEGWTRYGPEGEAVPVAIPEERALVFDVE
VCLAEGTCPTLAVAISPSAWYSWCSQRLVEERYSWTSQLSPADLIPLEVP
TGASSPTQRDWQEQLVVGHNVSFDRAHIREQYLIQGSRMRFLDTMSMHMA
ISGLSSFQRSLWIAAKQGKHKVQPPTKQGQKSQRKARRGPAISSWDWLDI
SSVNSLAEVHRLYVGGPPLEKEPRELFVKGTMKDIRENFQDLMQYCAQDV
WATHEVFQQQLPLFLERCPHPVTLAGMLEMGVSYLPVNQNWERYLAEAQG
TYEELQREMKKSLMDLANDACQLLSGERYKEDPWLWDLEWDLQEFKQKKA
KKVKKEPATASKLPIEGAGAPGDPMDQEDLGPCSEEEEFQQDVMARACLQ
KLKGTTELLPKRPQHLPGHPGWYRKLCPRLDDPAWTPGPSLLSLQMRVTP
KLMALTWDGFPLHYSERHGWGYLVPGRRDNLAKLPTGTTLESAGVVCPYR
AIESLYRKHCLEQGKQQLMPQEAGLAEEFLLTDNSAIWQTVEELDYLEVE
AEAKMENLRAAVPGQPLALTARGGPKDTQPSYHHGNGPYNDVDIPGCWFF
KLPHKDGNSCNVGSPFAKDFLPKMEDGTLXAGPGGASGPRALEINKMISF
WRNAHKRISSQMVVWLPRSALPRAVIRHPDYDEEGLYGAILPQVVTAGTI
TRRAVEPTWLTASNARPDRVGSELKAMVQAPPGYTLVGADVDSQELWIAA
VLGDAHFAGMHGCTAFGWMTLQGRKSRGTDLHSKTATTVGISREHAKIFN
YGRIYGAGQPFAERLLMQFNHRLTQQEAAEKAQQMYAATKGLRWYRLSDE
GEWLVRELNLPVDRTEGGWISLQDLRKVQRETARKSQWKKWEVVAERAWK
GGTESEMFNKLESIATSDIPRTPVLGCCISRALEPSAVQEEFMTSRVNWV
VQSSAVDYLHLMLVAMKWLFEEFAIDGRFCISIHDEVRYLVREEDRYRAA
LALQITNLLTRCMFAYKLGLNDLPQSVAFFSAVDIDRCLRKEVTMDCKTP
SNPTGMERRYGIPQGEALDIYQIIELTKGSLEKRSQPGPGGGVDGHHHHH
H*

**Accession Number** NM_002693

**Source** *Sf9*

**Molecular Mass** Approximately 145kDa.

**Purity** ≥90%, as determined by SDS-PAGE.

**Biological Activity** Human DNA polymerase gamma □ ◂POLG□▸ is the catalytic subunit of mitochondrial DNA polymerase and plays an essential role in neurological diseases.

**Formulation** 20mM Tris-Cl, pH7.9, 20% glycerol, 100mM NaCl, 1mM DTT and 1mM EDTA.

**Storage** The protein sample can be stored under sterile conditions at 2-8°C for one month or at -20°C to -70°C for three months without detectable loss of activity.

**Special Notes** **FOR RESEARCH USE ONLY**