

Product datasheet for **RC235169**

POLD1 (NM_001256849) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: POLD1 (NM_001256849) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: POLD1
Synonyms: CDC2; CRCS10; MDPL; POLD
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC235169 representing NM_001256849
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATGGCAAGCGGGCCAGGCCAGGGCCCGGGTGCSCCAAGCGGGCCCGTGGGGCCTCTGGG
 ATGATGATGATGCACCTCGGCCATCCCAATTCGAGGAGGACCTGGCACTGATGGAGGAGATGGAGGCAGA
 ACACAGGCTGCAGGAGCAGGAGGAGGAGGAGCTGCAGTCAGTCCCTGGAGGGGTTGCAGACGGGCAGGTC
 CCACCATCAGCCATAGATCCTCGCTGGCTTCGGCCACACCACCAGCGCTGGACCCAGACAGAGCCCC
 TCATCTTCCAACAGTTGGAGATTGACCATTATGTGGGCCAGCGAGCCTGTGCCTGGGGGGCCCCACC
 ATCCCAGCGCTCCGTGCCTGTGCTCCGCGCCTTCGGGGTACCGATGAGGGGTTCTCTGTCTGCTGCCAC
 ATCCACGGCTTCGCTCCCTACTTCTACACCCAGCGCCCCCTGGTTTCGGGCCGAGCACATGGGTGACC
 TGCAACGGGAGCTGAACCTGGCCATCAGCCGGGACAGTCGCGGGGGAGGGAGCTGACTGGGCCGGCCGT
 GCTGGCTGTGGAAGTGTGCTCCCGAGAGAGCATGTTGGGTACCACGGGCACGGCCCCCTCCCGTTCCTG
 CGCATCACCGTGGCGCTGCCGCGCTCGTGGCCCCGGCCCGCTCTCCTGGAACAGGGTCCCGTTCATGGTGGA
 CAGGCCCTGGGCACGCCAGCTTCGCGCCCTACGAGGCCAACGTCGACTTTGAGATCCGGTTCATGGTGGA
 CACGGACATCGTCGGCTGCAACTGGCTGGAGCTCCAGCTGGGAAATACGCCCTGAGGCTGAAGGAGAAG
 GCTACGCAGTGCCAGCTGGAGGCGGACGTGCTGTGGTCTGACGTGGTCACTCACCCACCGAAGGGCCAT
 GGCAGCGCATTGCGCCCTTGCAGGCTGCTCAGCTTCGATATCGAGTGCAGCGCCGCGCAAAGGCATCTTCCC
 TGAGCCTGAGCGGGACCTGTATCCAGATCTGCTCGCTGGCCCTGCGCTGGGGGAGCCGGAGCCCTTC
 CTACGCTGGCGCTCACCTGCGGCCCTGTGCCCCATCCTGGGTGCCAAGGTGCAGAGCTACGAGAAGG
 AGGAGGACCTGCTGCAGGCTGGTCCACCTTCATCCGATCATGGACCCGACGTGATCACCGTTACAA
 CATCCAGAACTTCGACCTTCCGTACCTCATCTCTCGGGCCAGACCTCAAGGTACAAACATTCCCTTTC
 CTGGGCCGTGTGGCCGGCCTTTGCTCCAACATCCGGGACTCTTATTCCAGTCCAAGCAGACGGGCCGGC
 GGGACACCAAGGTTGTCAGCATGGTGGGCGCGTGCAGATGGACATGCTGCAGGTGCTGCTGCGGGAGTA
 CAAGCTCCGCTCTACACGCTCAATGCCGTGAGCTTCCACTTCTGGGCGAGCAGAGGAGGACGTGCAG
 CACAGCATCATACCGACCTGCAGAATGGGAACGACCAGACCCGCGCCGCTGGCTGTGTACTGCTCTGA



[View online >](#)

AGGATGCCTACCTGCCACTGCGGCTGCTGGAGCGGCTCATGGTGTGGTGAACGCCGTGGAGATGGCGAG
 GGTCACTGGCGTGCCCTCAGCTACCTGCTCAGTCGTGGCCAGCAGGTCAAGGTCGTATCCCAGCTGTTG
 CGGCAGGCCATGCACGAGGGGCTGCTGATGCCCGTGGTGAAGTCAGAGGGCGCGGAGGACTACACGGGAG
 CCACTGTCATCGAGCCCTCAAAGGCTACTACGACGTCCCATCGCCACCTGGACTTCTCTCGCTGTA
 CCCGTCATCATGATGGCCACAACCTGTGTTACACCACGCTCCTTCGGCCCGGGACTGCACAGAACTG
 GGCCTGACTGAGGATCAGTTCATCAGAACCCACCGGGGACGAGTTTGTGAAGACCTCAGTGGGAAGG
 GGCTGCTGCCAGATCCTGGAGAACCTGCTCAGTGCCCGGAAGAGGGCCAAGGCCAGCTGCGCAAGGA
 GACAGACCCCTCCGGCCAGGTCCTGGATGGACGGCAGCTGGCGCTGAAGGTGAGCGCAACTCCGTA
 TACGGTTCCTGCGCCAGGTTGGCAAGTTGCCGTGCCTGGAGATCTCACAGAGCGTCACGGGTTTCG
 GACGTCAGATGATCGAGAAAACCAAGCAGCTGGTGGAGTCTAAGTACACAGTGGAGAATGGCTACAGCAC
 CAGTGCCAAGGTGGTGTATGGTGAAGTACTGCTCCGTCATGTGCCGATTTCGGCGTGTCTCGGTGGCTGAG
 GCGATGGCCCTGGGGCGGAGGCCGCGGACTGGGTGTGAGTCACTTCCCGTCCGCCATCCGGCTGGAGT
 TTGAGAAGGTCTACTTCCATACCTGCTTATCAGCAAGAAGCGCTACGCGGGCTGCTTCTCTCTCCCG
 GCCGACGCCACGACCCATGGACTGCAAGGGCTGGAGGCCGTGCGCAGGGACAAGTCCCCCTCGTG
 GCCAACCTGGTCACTGCCTCACTGCGCCGCTGCTCATCGACGAGACCCTGAGGGCGCGGTGGCTCAGC
 CACAGGACGTCATCTCGACCTGCTGTGCAACCGCATCGATATCTCCAGCTGGTATCACAAGGAGCT
 GACCCGCGCGCCCTCCGACTATGCCGGCAAGCAGGCCACGTGGAGCTGGCCGAGAGGATGAGGAAGCGG
 GACCCCGGAGTGCGCCAGCCTGGGCGACCGCTCCCTACGTGATCATCAGTGCCGCCAAGGTTGTGG
 CCGCTACATGAAGTCGGAGGACCCGCTGTTCTGTGCTGGAGCACAGCCTGCCATTGACACGCACTACTA
 CCTGGAGCAGCAGCTGGCCAAGCCCTCCTGCGCATCTTCGAGCCATCCTGGGCGAGGGCCGTGCCGAG
 GCTGTGCTACTGCGGGGGACACACGCGCTGCAAGACGGTGTACAGGGCAAGTGGGCGGCTCCTGG
 CCTTCGCCAACGCCCAACTGCTGCATTGGCTGCCGACAGTGTGCTCAGCCACCAGGGAGCCGTGTGTA
 GTTCTGCCAGCCCGGAGTCTGAGCTGTATCAGAAGGAGGTATCCCATCTGAATGCCCTGGAGGAGCCG
 TTCTCGCCCTCTGGACGAGTGCACGCGCTGCCAGGGCAGCTGCACGAGGACGTCATCTGACACCGCC
 GGGACTGCCCCATCTTCTACATGCGCAAGAAGGTGCGGAAGGACCTGGAAGACCAGGAGCAGCTCCTGCG
 GCGCTTCGGACCCCTGGACCTGAGGCCTGG

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC235169 representing NM_001256849
 Red=Cloning site Green=Tags(s)

MDGKRRPGPGVPPKRARGGLWDDDDAPRPSQFEEDLALMEEMEAHRLQEQQEEEELQSVLEGVADGQV
 PPSAIDPRWLRTPPALDPQTEPLIFQQLEIDHYVGAQPVPVGGPPPSRGSVPVLRVAFVGTDEGFSVCC
 IHGFAPYFYTPAPPFGPEHMGDLQRELNLAI SRDSRGGRELTPAVLAVELCSRESMFYHGHGSPFLL
 RITVALPRLVAPARRLLEQIRVAGLGTSPFAPYEANVDFEIRFMVDTDIVGCNWLLELPAGKYALRLKEK
 ATQCQLEADVLSQVSHPPPEGWQRIAPLRVLSFDIECAGRKGIFPEPERDPVIQICSLGLRWGEPEPF
 LRLALTLRPCAPILGAKVQSYEKEDLLQAWSTFIRIMDPDVITGYNIQNFDPYLIISRAQTLKVQTFPF
 LGRVAGLCSNIRDSSFQSKQTGRDRTKVSMVGRVQMDMLQVLLREYKLSYTLNAVSVFHFLEGEQKEDVQ
 HSIITDLQNGNDQTRRLAVYCLKDAYLPLRLRLERLMLVNAVEMARVTGPVLSYLLSRGQQVKVVSQLL
 RQAMHEGLLMPVVKSEGGEDYTGATVIEPLKGYDVPIATLDFSSLYPSIMMAHNLCTYTLRPGTAQKL
 GLTEDQFIRTPGDFVKT SVRKGLLPQILENLLSARKRAKAEAKETDPLRRQVLDGRQLALKVANSV
 YGFTGAQVGLPCLEISQSVTFGRQMIEKTKQLVESKYTVENGYSTSAKVYVYGDTSVMCRFGVSSVAE
 AMALGREAADWVSGHFPSPIRLEFEKVYFPYLLISKKRYAGLLFSSRPDAHRMDCKGLEAVRRDNCPLV
 ANLVTASLRLLIDRDPEGAVAHAQDVIDLNCNRIDISQLVITKELTRAASDYAGKQAHVELAERMRKR
 DPGSAPSLGDRVPYVVIISAAGVAAYMKSEDPLFVLEHSLPIDTQYYLEQQLAKPLLRI FEPILGEGRAE
 AVLLRGDHTRCTVLTGKVGGLLAFARRNCCIGCRTVLSHQGAVCFQCQPRESELYQKEVSHLNALEER
 FSRLWTQCQRCQGS LHEDVICTSRDCPIFYMRKKVRKDLEDQEQLLRRFGPPGPEAW

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

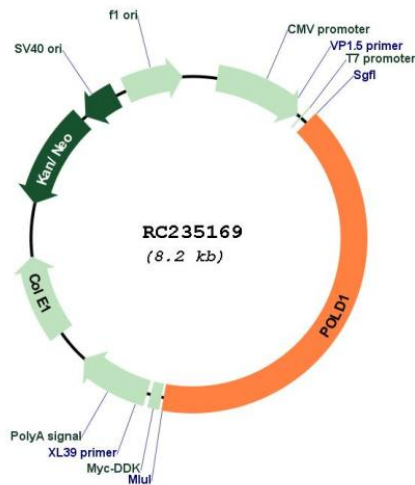
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001256849

ORF Size: 3321 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:	<u>NM_001256849.1</u> , <u>NP_001243778.1</u>
RefSeq Size:	3467 bp
RefSeq ORF:	3324 bp
Locus ID:	5424
UniProt ID:	<u>P28340</u>
Cytogenetics:	19q13.33
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Base excision repair, DNA replication, Homologous recombination, Metabolic pathways, Mismatch repair, Nucleotide excision repair, Purine metabolism, Pyrimidine metabolism
MW:	124.1 kDa
Gene Summary:	This gene encodes the 125-kDa catalytic subunit of DNA polymerase delta. DNA polymerase delta possesses both polymerase and 3' to 5' exonuclease activity and plays a critical role in DNA replication and repair. Alternatively spliced transcript variants have been observed for this gene, and a pseudogene of this gene is located on the long arm of chromosome 6. [provided by RefSeq, Mar 2012]