

Product datasheet for SC118520

POLD1 (NM_002691) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	POLD1 (NM_002691) Human Untagged Clone
Tag:	Tag Free
Symbol:	POLD1
Synonyms:	CDC2; CRCS10; MDPL; POLD
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_002691, the custom clone sequence may differ by one or more nucleotides

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ATGGATGGCAAGCGGGCCAGGCCAGGGCCCGGGGTGCCCCAAAGCGGGCCCGTGGGGCCTCTGGG
ATGATGATGATGCACCTCGGCCATCCCAATTCGAGGAGGACCTGGCACTGATGGAGGAGATGGAGGCAGA
ACACAGGCTGCAGGAGCAGGAGGAGGAGGAGCTGCAGTCAGTCCTGGAGGGGGTTGCAGACGGCCAGGTC
CCACCATCAGCCATAGATCCTCGCTGGCTTCGGCCACACCACCAGCGCTGGACCCAGACAGAGCCCC
TCATCTTCCAACAGTTGGAGATTGACCATTATGTGGGCCAGCGCAGCCTGTGCCTGGGGGGCCCCACC
ATCCCGCGGCTCCGTGCCTGTGCTCCGCGCCTTCGGGGTACCGATGAGGGGTTCTGTCTGCTGCCAC
ATCCACGGCTTCGCTCCCTACTTCTACACCCAGCGCCCTGGTTTCGGGCCGAGCACATGGGTGACC
TGCAACGGGAGCTGAACTTGCCATCAGCCGGGACAGTCGCGGGGGAGGAGCTGACTGGCCCGGCCGT
GCTGGCTGTGGAAGTGTGCTCCCGAGAGAGCATGTTTGGGTACCACGGGCACGGCCCTCCCGTTCCCTG
CGCATCACCGTGGCGCTGCCGCGCTCGTGGCCCCGGCCCGCTCTCCTGGAACAGGGCATCCGTGTGG
CAGGCCTGGGCACGCCAGCTTCGCGCCCTACGAGGCCAACGTCGACTTTGAGATCCGGTTCATGGTGGA
CACGGACATCGTCGGCTGCAACTGGCTGGAGCTCCAGCTGGGAAATACGCCCTGAGGCTGAAGGAGAAG
GCTACGCACTGCCAGCTGGAGGCGGACGTGCTGTGGTCTGACGTGGTCAGTACCACCGGAAGGGCCAT
GGCAGCGCATTGGCCCTTGCCTGCTCAGCTTCGATATCGAGTGCAGCGCCGCAAGGCATCTTCCC
TGAGCTGAGCGGGACCCTGTCATCCAGATCTGCTCGCTGGCCCTGCGCTGGGGGAGCCGGACCCCTTC
CTACGCTGGCGCTCACCTGCGCCCTGTGCCCATCCTGGGTGCCAAGGTGCAGAGCTACGAGAAGG
AGGAGGACCTGTGCAGGCTGTTCCACCTTCATCCGATCATGGACCCGACGTGATCACCGGTTACAA
CATCCAGAACTTCGACCTTCCGTACCTCATCTCTCGGGCCAGACCCCAAGGTACAAACATTCCCTTTC
CTGGGCCGTGTGGCCGCTTTGCTCCAACATCCGGGACTTTCATTCCAGTCCAAGCAGACGGCCGGC
GGGACACCAAGGTTGTCAGCATGGTGGGCCGCTGCAGATGGACATGCTGCAGGTGCTGCTGCGGGAGTA
CAAGCTCCGCTCCTACAGCTCAATGCCGTGAGCTTCCACTTCTGGGCGAGCAGAAGGAGGACGTGCAG
CACAGCATCATCACCAGCTGCAGAATGGGAACGACCAGACCCGCGCCCGCTGGCTGTGTACTGCCTGA
AGGATGCCTACCTGCCACTGCGGCTGCTGGAGCGGCTCATGGTGTGGTGAACCGCTGGAGATGGCGAG

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GGTCACTGGCGTGCCCTCAGCTACCTGCTCAGTCGTGGCCAGCAGGTCAAGGTCGTATCCCAGCTGTTG
CGGCAGGCCATGCACGAGGGGCTGCTGATGCCCGTGGTGAAGTCAGAGGGCGGCGAGGACTACACGGGAG
CCTACTGTCATCGAGCCCCCAAAGGGTACTACGACGTCCCATCGCCACCCTGGACTTCTCCTCGCTGTA
CCCGTCCATCATGATGGCCACAACCTGTGTTACACCACGCTCCTTCGGCCCCGGGACTGCACAGAAACTG
GGCCTGACTGAGGATCAGTTCATCAGGACCCCCACCGGGACGAGTTTGTGAAGACCTCAGTGCGGAAGG
GGCTGCTGCCCCAGATCCTGGAGAACCTGCTCAGTGCCCGGAAGAGGGCCAAGGCCGAGCTGGCCAAGGA
GACAGACCCCCCTCCGGCCAGGTCTGGATGGACGGCAGCTGGCGCTGAAGGTGAGCGCCAACTCCGTA
TACGGCTTCACTGGCGCCAGGTGGGCAAGTTGCCGTGCCTGGAGATCTACAGAGCGTACGGGGTTCG
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CAGTGCCAAGGTGGTGTATGGTGACACTGACTCCGTCATGTGCCGATTCCGGCTGTCTCGGTGGCTGAG
GCGATGGCCCTGGGGCGGAGGCCGCGGACTGGGTGTCAGGTCACTTCCCGTCCGCCATCCGGCTGGAGT
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CCGCTACATGAAGTCGGAGGACCCGCTGTTCTGTGCTGGAGCACAGCCTGCCATTGACACGCAGTACTA
CCTGGAGCAGCAGCTGGCCAAGCCCTCCTGCGCATCTTCGAGCCCATCTGGGCGAGGGCCGTGCCGAG
GCTGTGCTACTGCGGGGGGACCACACGCGCTGCAAGACGGTGCTCACGGGCAAGGTGGGCGGCCTCCTGG
CCTTCGCCAAACGCCGCAACTGCTGCATTGGCTGCCGCACAGTGCTCAGCCACCAGGGAGCCGTGTGTGA
GTTCTGCCAGCCCCGGGAGTCTGAGCTGTATCAGAAGGAGGTATCCCATCTGAATGCCCTGGAGGAGCCG
TTCTCGCGCCTCTGGACGCAGTGCCAGCGCTGCCAGGGCAGCTGCACGAGGACGTATCTGCACCAGCC
GGGACTGCCCATCTTCTACATGCGCAAGAAGGTGCGGAAGGACCTGGAAGACCAGGAGCAGCTCCTGCG
GCGCTTCGGACCCCTGGACCTGAGGCCTGGTGA
    
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5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_002691 unedited
ATATCCCCCGCCCGTTGCCGCAAAGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAA
GCAGAGTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGGCCG
CGAATTCGGCACGAGGGCGGCGTAGGCTGTGGCGGAAACGCTGTTTGAAGCGGGATGGA
TGGCAAGCGGCGGCCAGGCCAGGGCCCGGGTGCSCCAAGCGGGCCCGTGGGGCCT
CTGGGATGATGATGATGCACCTCGGCCATCCCAATTCGAGGAGGACCTGGCACTGATGGA
GGAGATGGAGGCAGAACACAGGCTGCAGGAGCAGGAGGAGGAGGAGTGCAGTCAGTCTCT
GGAGGGGGTTGCAGACGGGCAGGTCCCACCATCAGCCATAGATCCTCGCTGGCTTCGGCC
CACACCACGAGCCTGGACCCCCAGACAGAGCCCCTCATCTTCCAACAGTTGGAGATTGA
CCATTATGTGGGCCAGCGCAGCCTGTGCCTGGGGGGCCCCACCATCCCGCGGCTCCGT
GCCTGTGCTCCGCGCCTTCGGGGTCAACGATGAGGGGTTCTGTCTGTGCCACATCCA
CGGCTTCGCTCCCTACTTCTACACCCAGCGCCCTGTTTCGGGCCGAGCACATGGG
TGACCTGCAACGGGAGCTGAACTTGCCATCAGCCGGGACAGTCGCGGGGGAGGGGAGC
TGACTGGGCCGGCCGTGCTGGCTGTGGAAGTGTCTCCCGAGAGAGCATGTTTGGGTACC
ACGGGCACNGCCCTCCCGTTCCTGCGCTCANCCTGGCGTGGCGCGCCTCGTGGCC
CGGCCCGCGTCTCCTGGGACAGGGCATCCGTGTGGCAGGCTGGGCACGCCAGCTTCG
CGCCCTACGAGCCNACGTCN
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002691 unedited CATATTATGTACCGCGCCGATTCTANGATCGATT TTTTTTTTTTTTAAACAAAAGTCCAAAACCTTATTAATTCTCCCTGGTCCC GCCCCCCGCC CATGGGATGCTTGCAAGGTACCAAGCCTCAAGTCCAGGGGGTCCGAAACGCCGCAAGAG CTGCTCCTGGTCTTCCAGGTCTTCCGCACCTTTTTGCGCATGTAAAAATGGGGCAGTC CCGGCTGGTGCAAATGACGTCTCGTCAAGCTGCCCTGGCAGCGCTGGCACTGCGTCCA AAGGCGCGAGAAGCGCTCTCCAGGGCATTCAAATGGGATACCTCCTTCTGATACAGCTC AAATCCCGGGGCTGGCAGAACTCACACCGGCTCCCTGGTGGCTGAGCACTGTGCGGCA GCCAATGCAACATTTGCGGCGTTTGGCGAAAGCCAAGAAGCCGCCACCTTGCCCGTGAA CACCGTCTTGAGCGCGTGTGGTCCCCCGCAGTAGCACAACTCGGCACGGCCCTCGCC CAAGATGGGCTCGAATATGCGCAAGAAGGGCTTGGCCAACTGCTGCTCCAAGTAGTACTG CGTGTCAATGGGCAAGCTGTGCTCCAGCACGAACAGCGGGTCTCCGACTTTATGTAAGC GGGCACACCTTGGCGGGACTGATGATCACCTATGGGACGCGGGTCCCCAAGCTGGGCGC ACTTCCAGGGTCCCGCTTCTCATACTCTTGGGCAACTCCACGTGGGCCCTGTTGCCNGC TTATTCGAGGGCCCCCGGTCAACTTCTGTGGATGACCCACTGGGAGATATCGATTGC GTTTGCCAACAAAGGTCCCAAAAACCTCCCGTGCGTGACCCACCGCCCCCAA
Restriction Sites:	NotI-NotI
ACCN:	NM_002691
Insert Size:	3600 bp
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).
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_002691.1 , NP_002682.1
RefSeq Size:	3443 bp
RefSeq ORF:	3324 bp
Locus ID:	5424
UniProt ID:	P28340
Cytogenetics:	19q13.33
Domains:	DNA_pol_B_exo, DNA_pol_B, POLBc
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
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) contains an alternate exon in the 5' UTR and uses an alternate splice site in the 3' coding region, compared to variant 4. The encoded isoform (1) is shorter than isoform 2.</p>