

## Product datasheet for **KN201238**

### POLD1 Human Gene Knockout Kit (CRISPR)

#### Product data:

**Product Type:** Knockout Kits (CRISPR)  
**Format:** 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control  
**Donor DNA:** GFP-puro  
**Symbol:** POLD1  
**Locus ID:** 5424  
**Components:** **KN201238G1**, POLD1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGCCCCCAAAGCGGGCCCGT  
**KN201238G2**, POLD1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGGATGATGATGATGCACCT  
**KN201238D**, donor DNA containing left and right homologous arms and GFP-puro functional cassette.

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **GFP-puro in green**; **Right arm in violet**

```
AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAAGCG GTTAGCTCCT TCGGTCCTCC GATCGTTGTC
AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCGGCG
ACCGAGTTGC TCTTGCCCGG CGTCAATACG GGATAATACC GCGCCACATA GCAGAATTTT AAAAGTGCTC
ATCATTGGAA AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCCTG GTTGAGATCC AGTTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCAGC GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAACA AATAGGGGTT CCGCGCAT TCCCCGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGGG TCGCGGTTT CGGTGATGAC
GGTAAAACC TCTGACACAT GCAGCTCCG TTGACGGTCA CAGCTTGCT GTAAGCGGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTCGC GTTAAATTTT
TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG GCAAAATCCC TTATAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT CACCAAATC AAGTTTTTTG
GGGTCGAGGT GCCGTAAAGC ACTAAATCGG AACCCCTAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGCGGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTACAG CTGCGGTAA CCACCACACC CGCCGCGCTT AATGCGCCGC TACAGGGCGC GACTATGGT
TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATCGCT AAGGAGAAAA TACCGCATCA GGCGCCATC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGTATTACG CCAGCTGGCG
AAAGGGGAT GTGCTGCAAG GCGATTAAGT TGGTAACGC CAGGGTTTTC CCAGTACGA CGTTGTAATA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACTGA CTGACTGACT GGAAGACACA
```



[View online »](#)

CCTGGAGACA GAGGTTTATG GAAAATAAAG AGATGTGCCA AGGCCGGGCG CGGAGACTCA GGCCTGTAAT  
 CTCAGCACTT TGGGAGGCTG AGGCGAGTGG ATCACCTGAG GTCAGGAGTT CGAGACCAGC CTGGCCAACA  
 TGGCAAAACC CCGTCTCTAC TCAAAACACA AAAATTAGT GGGTGTGGTG GTGGGCGCCT GTAATCCCAG  
 CTACTCGGGA GGCTGAGGGG AGAATCGCTT GAACCTGGGA GGTAGAGCTT GCAGTGAGCC GAGATCATGC  
 CATTGCACTC CAGCCTGGGT GACAAGAGCA CAATTCCATC TCAAAAAAAA AAAAAAAA AAAAGCAAGA  
 GATGTGCTAA GGACCTAGTG TGATGGGAGA GAGGGTCGGG GAGTCGACGG GGCTGCTGTG GCAGTAGCTA  
 ACAATTGAGC GTCTGGAATG TGCTCCACC CCCTGCGCTG CAGGGTGCAAG AGAGATATGT TAGTACAGCC  
 AGTCCAGAGT AGGAAAAGGC TGTGGTTCAT GGTGGGTGCA TGGGATGCCA TGGAGACAGG GTAAGAGGTG  
 TCTCCGGTCA GAACCTCCAC CAAGCTCCAA CTTGCCACG AGGACTAGCA TGGAGAGCGA CGAGAGCGGC  
 CTGCCCGCCA TGGAGATCGA GTGCCGCATC ACCGGCACCC TGAACGGCGT GGAGTTCGAG CTGGTGGGCG  
 GCGGAGAGGG CACCCCGAG CAGGGCCGCA TGACCAACA GATGAAGAGC ACCAAAGGCG CCCTGACCTT  
 CAGCCCCTAC CTGCTGAGCC ACGTGATGGG CTACGGCTTC TACCACTTCG GCACCTACCC CAGCGGCTAC  
 GAGAACCCCT TCCTGCACGC CATCAACAAC GCGGGCTACA CCAACACCCG CATCGAGAAG TACGAGGACG  
 GCGGCGTGCT GCACGTGAGC TTCAGCTACC GCTACGAGGC CGGCCGCGTG ATCGGCGACT TCAAGGTGAT  
 GGGCACCGGC TTCCCGAGG ACAGCGTGAT CTTACCAGC AAGATCATCC GCAGCAACGC CACCGTGGAG  
 CACCTGCACC CCATGGGCGA TAACGATCTG GATGGCAGCT TCACCCGCAC CTTGAGCCTG CGCGACGGCG  
 GCTACTACAG CTCCGTGGTG GACAGCCACA TGCACTTCAA GAGCGCCATC CACCCAGCA TCCTGCAGAA  
 CGGGGGCCCC ATGTTCCGCT TCCGCCGCGT GGAGGAGGAT CACAGCAACA CCGAGCTGGG CATCGTGGAG  
 TACCAGCAGC CCTTCAAGAC CCCGGATGCA GATGCCGGTG AAGAAAGAGT TTAAGAATTC CGATCATATT  
 CAATAACCCT TAATATAACT TCGTATAATG TATGCTATAC GAAGTTATTA GGTCTGAAGA GGAGTTTACG  
 TCCAGCCAAG CTTAGGATCT CGACCTCGAA ATTCTACCGG GTAGGGGAGG CGTTTTTCCC AAGGCAGTCT  
 GGAGCATCGC CTTTAGCAGC CCCGTGGGC ACTTGGCGCT ACACAAGTGG CCTCTGGCCT CGCACACATT  
 CCACATCCAC CGGTAGGCGC CAACCGACTC CGTTCTTTGG TGGCCCTTC GAGCCACCTT CTTACTCTCC  
 CCTAGTCAGG AAGTTCCTCC CGGCCCGCA GCTCGCGTCG TGCAGGACGT GACAAAATGGA AGTAGCACGT  
 CTTACTAGTC TCGTGCAGAT GGACAGCACC GCTGAGCAAT GGAAGCGGGT AGGCCTTTGG GGCAGCGGCC  
 AATAGCAGCT TTGCTCCTTC GCTTTCTGGG CTCAGAGGCT GGAAGGGGT GGGTCCGGGG GCGGGCTCAG  
 GGGCGGGCTC AGGGGCGGGG CGGGCGCCG AAGGTCTCC GGAGGCCCGG CATTCTGCAC GCTTCAAAAG  
 CGCACGTCTG CCGCGCTGTT CTCCTCTTCC TCATCTCCGG GCCTTTTCGAC CTGCATCCAT CTAGATCTCG  
 AGCAGCTGAA GCTTACCATG ACCGAGTACA AGCCACGGT GCGCCTCGCC ACCCGCAGC ACGTCCCAG  
 GGCCGTACGC ACCCTCGCG CCGCGTTCG CACTACCC GCCACGCGCC ACACCGTGA TCCGGACCGC  
 CACATCGAGC GGGTCACCGA GCTGCAAGAA CTCTTCTCA CGCGCGTCGG GCTCGACATC GGCAAGGTGT  
 GGGTCGCGGA CGACGGCGCC GCGGTGGCGG TCTGACCAC GCCGGAGAGC GTCGAAGCGG GGGCGGTGTT  
 CGCCGAGATC GGCCCGCGCA TGGCCGAGTT GAGCGGTTCC CGGCTGGCCG CGCAGCAACA GATGGAAGGC  
 CTCTGGCGC CGCACCGGCC CAAGGAGCCC GCGTGGTTCC TGGCCACCGT CGGCGTCTCG CCCGACCACC  
 AGGGCAAGGG TCTGGGCAGC GCCGTCGTGC TCCCGGAGT GGAGGCCGCC GAGCGCGCCG GGGTCCCCGC  
 CTTCTGGAG ACCTCCGCGC CCCACAACCT CCCCTTCTAC GAGCGGCTCG GCTTACCGT CACCGCCGAC  
 GTCGAGGTGC CCGAAGGACC GCGCACCTGG TGCATGACCC GCAAGCCCGG TGCCTGACGC CCGCCCCAG  
 ACCCGCAGCG CCCGACCGAA AGGAGCGCAC GACCCCATGC ATCGATGATA TCAGATCCCC GGGATGCAGA  
 AATTGATGAT CTATTAACA ATAAAGATGT CCACTAAAAT GGAAGTTTTT CCTGTCATAC TTTGTTAAGA  
 AGGGTGAGAA CAGAGTACCT ACATTTTGAA TGAAGGATT GGAGCTACGG GGGTGGGGT GGGGTGGGAT  
 TAGATAAATG CCTGCTCTTT ACTGAAGGCT CTTTACTATT GCTTTATGAT AATGTTTCAT AGTTGGATAT  
 CATAATTTAA ACAAGCAAAA CCAAATTAAG GGCCAGCTCA TTCCTCCAC TCATGATCTA TAGATCTATA  
 GATCTCTCGT GGGATCATTG TTTTCTCTT GATTCCACT TTGTGGTTCT AAGTACTGTG GTTTCCAAAT  
 GTGTCAGTTT CATAGCCTGA AGAACGAGAT CAGCAGCTC TGTTCCACAT AACTTTCATT CTCAGTATTG  
 TTTTGCCAAG TTCTAATTCC ATCAGAAGCT GGTCGAGATC CGGAACCCTT AATATAACTT CGTATAATGT  
 ATGCTATACG AAGTTATTAG GTCCTCGAA GAGGTTCACT AGGCGCGCCG ATGGAGGCAG AACACAGGCT  
 GCAGGAGCAG GAGGAGGAGG AGCTGCAGTC AGTCTGGAG GGGTTGCAG ACGGTAAGG TTTGAGTTGG  
 AGGTTCTGCG TGCCAACCC ATTGCCCTG GTCTTGCTT TGGTCCAAGA GTCAGCTGCA AAGCTGACCT  
 GTGACCCAC TCTGGCCAAT TTTGAATCCT ACAAAGGACT GCCCTTCCAC CCCGTGCAGC CTGTGTGGCC  
 TACAGTGATT CTGGCCCTGA CCCTTGACCC TCATTCTCTT CCAAGTTTCC TGCCTGACCC AGACCACCAC  
 CTCTGCTGG CTCCTTTAG AACACATGC CATCCTGGCC GGGGAAGACC ATGACTCCAT GACTCCACT  
 TCCTTCCCTT CCCCACCAG GGCAGGTCCC ACCATCAGCC ATAGATCTCT GCTGGCTTCG GCCCACCA

```

CCAGCGCTGG ACCCCAGAC AGAGCCCCTC ATCTTCCAAC AGTTGGAGAT TGACCATTAT GTGGGTGAGT
TTAGGGGTTA TGGGTGAGTG CTGGGGCCCT GCGCTCCTGG GGCAGAGGCC GGGCCAGGTC AGCCCCCTCG
GCCCTGTGCT CTGGGGCAA CGAAGAGACG ACTGACTGAC TGACTGGAAA GAGGAAGGGC TGGAAGAGGA
AGGAGCTTGG CGTAATCATG GTCATAGCTG TTTCTGTGT GAAATTGTTA TCCGCTCACA ATTCCACACA
ACATACGAGC CGGAAGCATA AAGTGTAAG CCTGGGGTGC CTAATGAGTG AGCTAACTCA CATTAAATTGC
GTTGCGCTCA CTGCCCGCTT TCCAGTCGGG AAACCTGTGC TGCCAGCTGC ATTAATGAAT CGGCCAACGC
GCGGGGAGAG GCGGTTTGGC TATTGGGCGC TCTTCCGCTT CCTCGCTCAC TGACTCGTG CGCTCGGTTCG
TTCGGCTCGC GCGAGCGGTA TCAGCTCACT CAAAGGCGGT AATACGGTTA TCCACAGAAT CAGGGGATAA
CGCAGGAAAG AACATGTGAG CAAAAGGCCA GCAAAAGGCC AGGAACCGTA AAAAGGCCGC GTTGCTGGCG
TTTTTCCATA GGCTCCGCC CCCTGACGAG CATCACAAAA ATCGACGCTC AAGTCAGAGG TGGCGAAACC
CGACAGGACT ATAAAGATAC CAGGCGTTTC CCCCTGGAAG CTCCCTCGTG CGCTCTCCTG TTCCGACCCT
GCCGTTACC GGATACCTGT CCGCCTTCT CCCTTCGGGA AGCGTGGCGC TTTCTCATAG CTCACGCTGT
AGGTATCTCA GTTCGGTGTA GGTTCGTTTC TCCAAGCTGG GCTGTGTGCA CGAACCCCC GTTCAGCCCG
ACCGCTGCGC CTTATCCGGT AACTATCGTC TTGAGTCAA CCCGGTAAGA CACGACTTAT CGCCACTGGC
AGCAGCCACT GGTAACAGGA TTAGCAGAGC GAGGTATGTA GCGGTGCTA CAGAGTTCTT GAAGTGGTGG
CCTAACTACG GCTACACTAG AAGAACAGTA TTTGGTATCT GCGCTCTGCT GAAGCCAGT ACCTTCGGAA
AAAGAGTTGG TAGCTCTTGA TCCGGCAAAC AAACCACCGC TGGTAGCGGT GGTTTTTTTG TTTGCAAGCA
GCAGATTACG CGCAGAAAAA AAGGATCTCA AGAAGATCCT TTGATCTTTT CTACGGGGTC TGACGCTCAG
TGAACGAAA ACTCACGTTA AGGGATTTTG GTCATGAGAT TATCAAAAAG GATCTTACC TAGATCCTTT
TAAATTAATA ATGAAGTTTT AAATCAATCT AAAGTATATA TGAGTAACT TGGTCTGACA GTTACCAATG
CTTAATCAGT GAGGCACCTA TCTCAGCGAT CTGTCTATTT CGTTCATCCA TAGTTGCCTG ACTCCCGTC
GTGTAGATAA CTACGATACG GGAGGGCTTA CCATCTGGCC CCAGTGCTGC AATGATACC CGAGAACCAC
GTCACCCGC TCCAGATTA TCAGCAATA ACCAGCCAGC CGGAAGGGCC GAGCGCAGAA GTGGTCTGTC
AATTTATCC GCCTCCATCC AGTCTATTA TTGTTGCCGG GAAGCTAGAG TAAGTAGTTC GCCAGTTAAT
AGTTTGCGCA ACGTTGTTGC CATTGCTACA GGCATCGTGG TGTCACGCTC GTCGTTTGGT ATGGCTTCAT
TCAGCTCCGG TTCCAACGA TC

```

**GE100003**, scramble sequence in pCas-Guide vector

**Disclaimer:**

These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

**RefSeq:**

[NM\\_001256849](#), [NM\\_002691](#), [NR\\_046402](#), [NM\\_001308632](#)

**UniProt ID:**

[P28340](#)

**Synonyms:**

CDC2; CRCS10; MDPL; POLD

**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]

Product images:

