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Product datasheet for SC122290

POLE (BC021559) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	POLE (BC021559) Human Untagged Clone
Tag:	Tag Free
Symbol:	POLE
Synonyms:	DKFZp434F222; DNA polymerase epsilon catalytic subunit; FLJ21434; POLE1; polymerase (DNA directed), epsilon
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene sequence for BC021559 edited
CTCTCTGCTTCATGACCCTGCCCTGCACCGCACACTCCACAACATGATGAAGAAGCTCTT
CCTGCAGCTCATCGCTGAGTTCAAGCGCCTGGGGTCATCAGTCATCTACGCCAACTTCAA
CCGCATCATCCTCTGTACAAAGAAGCGCCGTGTGGAAGATGCCATCGCTTACGTGGAGTA
CATCACCAGCAGCATCCATTCAAAGGAGACCTTCCATTCTCTGACAATTTCTTTCTCTCG
ATGCTGGGAATTTCTTCTCTGGATGGATCCATCTAACTATGGCGGAATCAAAGGAAAAGT
TTCATCTCGTATTCACTGTGGACTGCAAGACTCCCAGAAAGCAGGGGGAGCAGAGGATGA
GCAGGAAAATGAGGACGATGAGGAGGAAAGAGATGGGGAGGAGGAGGAAGAGGCGGAGGA
ATCCAACGTGGAGGATTTACTGGAAAACAACTGGAACATTTTGCAGTTTTTGCCACAGGC
AGCCTCCTGCCAGAACTACTTCCTCATGATTGTTTCAGCGTACATCGTGGCCGTGTACCA
CTGCATGAAGGACGGGCTGAGGCGCAGTGCTCCAGGGAGCACCCCCGTGAGGAGGAGGGG
GGCCAGCCAGCTCTCCCAGGAGGCCGAGGGGGCGGTCGGAGCCCTTCCCGGAATGATCAC
CTTCTCTCAGGATTATGTCGCAAATGAGCTCACTCAGAGCTTCTTCACCATCACTCAGAA
GATTCAGAAGAAAGTCACAGGCTCTCGGAACTCCACTGAGCTCTCAGAGATGTTTCCTGT
CCTCCCCGGTTCCCACTTGCTGCTCAATAACCCTGCCCTGGAGTTCATCAAATACGTGTG
CAAGGTGCTGTCCCTGGACACCAACATCACAAACCAGGTGAATAAGCTGAACCGAGACCT
GCTTCGCCTGGTGGATGTCGGCGAGTTCTCCGAGGAGGCCCAGTTCCGAGACCCCTGCCG
CTCCTACGTGCTTCCTGAGGTCATCTGCCGCAGCTGTAACTTCTGCCGCGACCTGGACCT
GTGTAAAGACTCTTCCTTCTCAGAGGATGGGGCGGTCCTGCCTCAGTGGCTCTGCTCCAA
CTGTCAGGCGCCCTACGACTCCTCTGCCATCGAGATGACGCTGGTGGAAGTTCTACAGAA
GAAGCTGATGGCCTTCACCCTGCAGGACCTGGTCTGCCTGAAGTGCCGCGGGGTGAAGGA
GACCAGCATGCCTGTGTACTGCAGCTGCGCGGGAGACTTCGCCCTCACCATCCACACCCA
GGTCTTCATGGAACAGATCGGAATATTCCGGAACATTGCCCAGCACTACGGCATGTCGTA
CCTCCTGGAGACCCTGGAGTGGCTGCTGCAGAAGAACCCACAGCTGGGCCATTAGCCAGC
CCCGGGCCCCGGGTGCCTCTGCGTCCGTGCCAGGCCTCCTGATGCCAAGGCCACATCCCC
GTGCTTCCAGTGACCAGACCACTGACCACCCTGACTGTCCAAACCTGTGACCCCAGGCCA
GGGAACGGGGAGGAAACCAAAGAAAACCATTTTCAGGGAGCTCAGACGTCACAGGAGGGA
GCGGGAGCAGGATGTGGCCCTGGCCTCGCCAGAGCACCTGAAGAAGCAGGCCGTGAGCGA
GGCTGCGAGTGCCCTGGGCGCCGTTTCTCACGCAGTGAATGCTTTTCCAGGCCTCTGTTG
CTTCCTGCACCACACCTGGTGGGGTGGGAGCGTCCTCTAGGTGCCCCTAGTTCTTTGTCC
TGCCTCCCAGAGGGAGGAAAAGCCCCTGGGGGCTTCTGGCTCCCTGAGATTGGGCTCTGA
GACGAGACGGGTTCCCAAGGCCCTGGTGGGGCTGGAGTCTCACCTGTTTGCATGGAGAAA
TGGGCTGGCCCCACAGCCTCACAGGAGCAGTTTGTGGGCTGGTTTCCCCAGGAATCCAGA
CCCTAACCCGTGAGAATCTGGATTTTGGCTTGTGAGCCCTGCTTATTTGGAGCCGGGTCT
AGAGGGAACCCTCTATCAGCCTCAGGAAAACAAGACCTCTGTGCACCTCACTTTTGGCTC
ACTGCAGCCCTTGTCCTTCACCTCCACACAGGACCAGCTGGAAGCAGAAAGAAGAAAGGC
CAATTTCACAGGGCACCAAACAAGTATGAAATGTAAATCAGAAATGCAGACACCCCAGAC
GAGAGCCTCACAGGAGGGAGGGGGCCCCACAGGCTCCCCAGGAGGCTCGTGTCTTTGGCC
CAGAGCCAGCCTTAGTTTGTCCCTGCCATCTACTGTCTGAGGCCATCGCTGCTACACTTT
GTTTTTATTTGTATTTCATACTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

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>OriGene 5' read for BC021559 unedited
GGGGTTCATATTTTGTAATACGACTCACTATAGGGCGGGCCGCGCAATTCGCACGAGGCT
CTCTGCTTCATGACCCTGCCCTGCACCGCACACTCCACAACATGATGAAGAAGCTCTTCC
TGCAGCTCATCGCTGAGTTCAAGCGCCTGGGGTCATCAGTCATCTACGCCAACTTCAACC
GCATCATCCTCTGTACAAAGAAGCGCCGTGTGGAAGATGCCATCGCTTACGTGGAGTACA
TCACCAGCAGCATCCATTCAAAGGAGACCTTCCATTCTCTGACAATTTCTTTCTCTCGAT
GCTGGGAATTTCTTCTCTGGATGGATCCATCTAACTATGGCGGAATCAAAGGAAAAGTTT
CATCTCGTATTCACTGTGGACTGCAAGACTCCCAGAAAGCAGGGGGAGCAGAGGATGAGC
AGGAAAATGAGGACGATGAGGAGGAAAGAGATGGGGAGGAGGAGGAAGAGGCGGAGGAAT
CCAACGTGGAGGATTTACTGGAAAACAACTGGAACATTTTGCAGTTTTTGCCACAGGCAG
CCTCCTGCCAGAACTACTTCCTCATGATTGTTTCAGCGTACATCGTGGCCGTGTACCACT
GCATGAAGGACGGGCTGAGGCGCAGTGCTCCAGGGAGCACCCCCGTGAGGAGGAGGGGGG
CCAGCCAGCTCTCCCAGGAGGCCGAGGGGGCGGTCGGAGCCCTTCCCGGATGATCACCTT
CTCTCAGGATTATGTCGCANATGAGCTCACTCAGAGCTTCTTCACCATCACTCAGAAGAT
TCAGAAGAAAGTCACAGGCTCTCGGGACTCCACTGAGCTCTCAGAGATGTTTCCTGTCCT
CCCGGTTCCCACTTGCTGCTCAATAACCCTGCCCTGGAGTTCATCAAATACGTGTGCAAG
GTGCTGTCCA
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Restriction Sites: Please inquire

ACCN: BC021559

Insert Size: 2334 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:
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: BC021559.1, AAH21559.1

RefSeq Size: 2334 bp

Locus ID: 5426

Cytogenetics: 12q24.33

Protein Families: Druggable Genome

Protein Pathways: Base excision repair, DNA replication, Metabolic pathways, Nucleotide excision repair, Purine metabolism, Pyrimidine metabolism

Gene Summary: This gene encodes the catalytic subunit of DNA polymerase epsilon. The enzyme is involved in DNA repair and chromosomal DNA replication. Mutations in this gene have been associated with colorectal cancer 12 and facial dysmorphism, immunodeficiency, livedo, and short stature. [provided by RefSeq, Sep 2013]