Taq DNA Polymerase Recombinant Protein | polA recombinant protein

Recombinant Taq DNA Polymerase

CATALOG #	HOST
AAA38270	**Recombinant E Coli contains Thermus aquaticus polymerase gene**

PRODUCT SYNONYMS

Taq DNA Polymerase; Recombinant Taq DNA Polymerase; TaqDNA; Taq DNA Polymerase Recombinant; DNA polymerase I thermostable; EC 2.7.7.7; Taq polymerase 1; polA recombinant protein

PRODUCT SPECIFICATIONS

Host	Recombinant E Coli contains Thermus aquaticus polymerase gene
Purity/Purification	Greater than 95.0% as determined by SDS-PAGE
Form/Format	Tag DNA Polymerase solution (10,000 IU/ 500 uL) in 20 mM Tris-HCl, pH 8.0, 100 mM KCl 0.1 mM EDTA, 1 mM DTT, 50% Glycerol,0.5% NP40, 0.5% Tween 20.
Unit Definition	One unit is defined as the amount of enzyme required to catalyze the incorporation of 10nmol of dNTP into acid-insoluble material in 30 minutes at 74°C. The reaction conditions are: 50mM Tris-HCl (pH 9.0 at 25°C), 50mM NaCl, 5mM MgCl2, 200um each of dATP, dCTP, dGTP, dTTP (a mix of unlabeled and [3H]dTTP), 10 ug activated calf thymus DNA and 0.1mg/ml BSA in a final volume of 50ul.
10X Reaction Buffer with MgCl2	500mM KCl, 100mM Tris-HCl (pH 9.0 at 25C), 1% Triton X-100 and 15mM MgCl2. Buffer is optimized for use with 0.2mM of each dNTP.
10X Reaction Buffer without MgCl2	500mM KCl, 100mM Tris-HCl (pH 9.0 at 25C) and 1% Triton X-100. Include: 10X Reaction Buffer without MgCl2 and separate 25mM MgCl2 Solution.
Features	Depend on an Enzyme That Works: Compositions of the storage buffers have been optimized to assure quality performance of the enzyme under a variety of conditions.
Specify Your Own Reaction Conditions	Choose either Taq with Mg-free 10X Reaction Buffer and separate 25mM MgCl2 or Taq with 10X Reaction Buffer containing 15mM MgCl2
Rely on a Performance-Tested Enzyme	Our PCR systems, enzymes and reagents are proven in PCR to ensure reliable, high-performance results. If you are not completely satisfied with any of our PCR product, we will send a replacement or refund your account.
Storage Buffer	Compatibility with Reaction Buffers: Taq DNA Polymerase in Storage Buffer. Use of other reaction buffers that do not contain Triton X-100 (final concentration of 0.1%) will result in inactivation of the enzyme. 50mM Tris-HCl (pH 8.0), 100mM NaCl, 0.1mM EDTA, 1mM DTT, 50% glycerol and 1% Triton X-100.
Preparation and Storage	Stable for 5 days at 10°C, for longer period of time store at -20°C.

IMAGES

Application Data
PCR -amplification of a 0.38 kb fragment of human genomic DNA with various amounts of templates (0.05-50 ng) in a a50 ul reaction volume.Lane 1 : 50 ng template ; Lane 2: 5 ng template; Lane 3: 0.5 ng templateLane 4: 0.05 ng template; Lane M: DNA Ladder 2000.

Application Data
PCR- amplification of the DNA templates (5ng)with varying lengths from 0.5 to 6.0 kb in a 50 uL reaction volume.Lane M: 1 kb DNA ladder MarkerLane 1: 0.5 kb; lane 2: 1 kb, lane 3: 2 kb;Lane 4: 3 kb; lane 5: 4kb; Lane 6: 6 kb.

ADDITIONAL INFORMATION

Related Product Information for polA recombinant protein	**Description:** Taq DNA Polymerase(a) is a thermostable enzyme of approximately 95 kDa isolated from Thermus aquaticus. This unmodified enzyme replicates DNA at 74°C and exhibits a half-life of 40 minutes at 95°C. The enzyme catalyzes the polymerization of nucleotides into duplex DNA in the 5´~3´ direction in the presence of magnesium and also possesses a 5´~3´ exonuclease activity. Taq DNA Polymerase is recommended for use in PCR but is not recommended for use in DNA sequencing reactions.
Product Categories/Family for polA recombinant protein	Enzymes; DNA Polymerase

NCBI AND UNIPROT INFORMATION

NCBI GI #	118828
UniProt Accession #	P19821
NCBI Official Full Name	DNA polymerase I, thermostable
UniProt Protein Name	DNA polymerase I, thermostable
UniProt Gene Name	**polA**
UniProt Synonym Gene Names	pol1
UniProt Entry Name	DPO1_THEAQ

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/pola-recombinant-protein-recombinant-e-coli-contains-thermus-aquaticus-polymerase-gene/38270