Product Information

Taq DNA Polymerase

Catalog No.: 40101
Product Name: Taq DNA Polymerase

Description

Leadgene Taq DNA polymerase, a recombinant protein, is originally isolated from *Thermus aquaticus*. It has the 5' to 3' exonuclease activity but not 3'-5' exonuclease activity during DNA synthesis. Leadgene Taq DNA polymerase has high extending speed around 1-2 kb/min. The PCR product has an "A" tail on 3' end which can be applied in TA cloning.

Unit definition

One unit of Taq DNA Polymerase incorporates 10 nmol of deoxyribonucleotide into acid-preceptible material in 30 minutes at 74°C.

Concentration	Package size	Storage
5 U/μL	500 U/set	-20°C

Storage buffer

20 mM Tris-HCl (pH 8.0), 0.1 mM EDTA, 1 mM DTT, 100 mM KCl, other stabilizers, 50% glycerol.

10X Taq PCR Buffer

200 mM Tris-HCl (pH 8.4), 200 mM KCl, 100 mM $(NH_4)_2SO_4$, 20 mM $MgSO_4$, and others.

Quality Control

This product has passed the following quality control assays: functional absence of double- and single-stranded endonuclease activity.
Each lot of Taq DNA Polymerase is assayed for amplification from as little as 10 ng of human genomic DNA.

Reaction Mixture Set Up

Component	Condition
Template DNA	10 pg - 100 ng[+]
Primer F (10 μM)	0.1 - 2 μL
Primer R (10 μM)	0.1 - 2 μL
10X Taq PCR Buffer	5 μL[#]
10 mM dNTPs (Cat. No. 4007160)	1 μL
Taq DNA polymerase	1.25 - 2.5 U
ddH_2O to final volume	50 μL

[+]For plasmid or viral templates: 10 pg - 1 ng
For genomic or cDNA templates:1 ng - 100 ng
[#]Additional 0.5-2 mM Mg^{2+} could be optimized.

Recommended thermal cycling conditions

Temperature	Time	Number of Cycles
94°C	2-5 min	1
94°C	30 sec	25-35
Tm-(3-5)°C	30 sec	
72°C	1-2 kb/min	
72°C	5-10 min	1

For research use only.

Leadgene Biomedical, Inc.
TEL: +886-6-505-2959
Address: Rm. R402, No.12, Nanke 2nd Rd., Xinshi Dist., Tainan City 744, Taiwan
Email: info@leadgene.com.tw
www.leadgene.com.tw

v.140701