



Taq DNA Polymerase (with dNTPs), Economy

BACKGROUND

Thermus aquaticus DNA polymerase (**Taq DNA polymerase**) was expressed in *E. coli* in large quantities and highly purified. The enzyme has thermostable DNA polymerase activity and the MW is 94 kDa. This enzyme is suitable for PCR reactions; capable of amplifying DNA with various primers.

- Applications:**
- 1) High-throughput PCR
 - 2) Colony PCR
 - 3) Incorporation of dUTP, dITP, and fluorescence-labeled nucleotides
 - 4) Primer extension
 - 5) Addition of a single nucleotide (adenosine) at the 3'-blunt ends
- Size:** 200 U (5U/ μ l)
- Concentration:** 5 units/ μ l, where one unit is defined as the amount of enzyme that can incorporate 10 nmols of total dNTPs into an acid-insoluble material in 30 minutes at 74°C when activated salmon sperm DNA was used as template/primer.
- Form:** 20mM Tris-HCl (pH 8.0), 100mM KCl, 0.1mM EDTA, 1mM DTT, 50% glycerol, 0.5% Tween20, 0.5% Igepal CA-630
- Quality Assurance:** Greater than 95% purity as determined by SDS-PAGE (CBB staining) (Fig.1) The absence of endonucleases and exonucleases was confirmed.
- PCR Test:** Good amplification result was obtained in PCR reaction using λ DNA as a template (Fig.2).
- Reagents Supplied with Enzyme:** 10 x Reaction Buffer (*Taq*): 100mM Tris-HCl (pH 8.3), 500mM KCl, 15mM MgCl₂ 2.5mM(each) dNTPs
- Storage:** Store at -20°C
- References:**

Related Products

BAM-02-021-EX	Pfu DNA polymerase (+dNTPs), Economy
BAM-02-031-EX	Pfu DNA polymerase (-dNTPs), Economy



General composition of PCR reaction mixture (total 50ul)

Taq DNA polymerase (5 units/ul)	*0.25 ul
10 x Reaction Buffer (Taq)	5 ul
2.5mM (each) dNTPs	4ul
Template	<500ng
Primer 1	0.2~1.0uM (final conc.)
Primer 2	0.2~1.0uM (final conc.)
Sterile distilled water	up to 50ul

*Use of excess amount is not recommended.

PCR condition

98°C	10 sec	} 25 cycles
57°C	30 sec	
72°C	8 min	

(2 min in the case of 2 kb DNA)

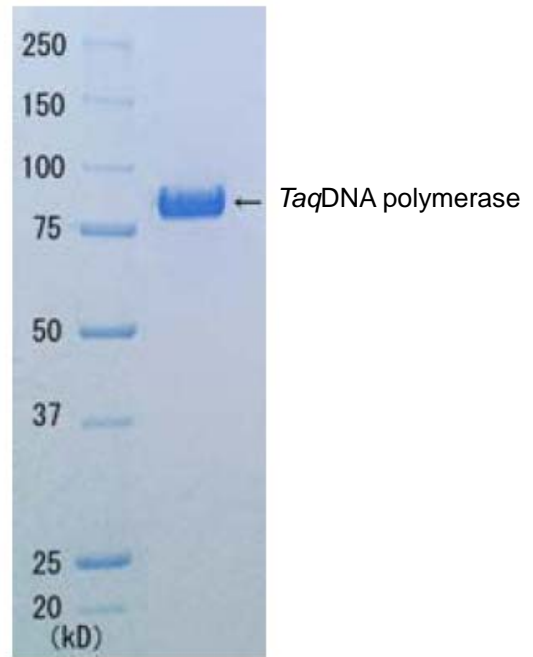


Fig.1 SDS-PAGE of Taq DNA polymerase

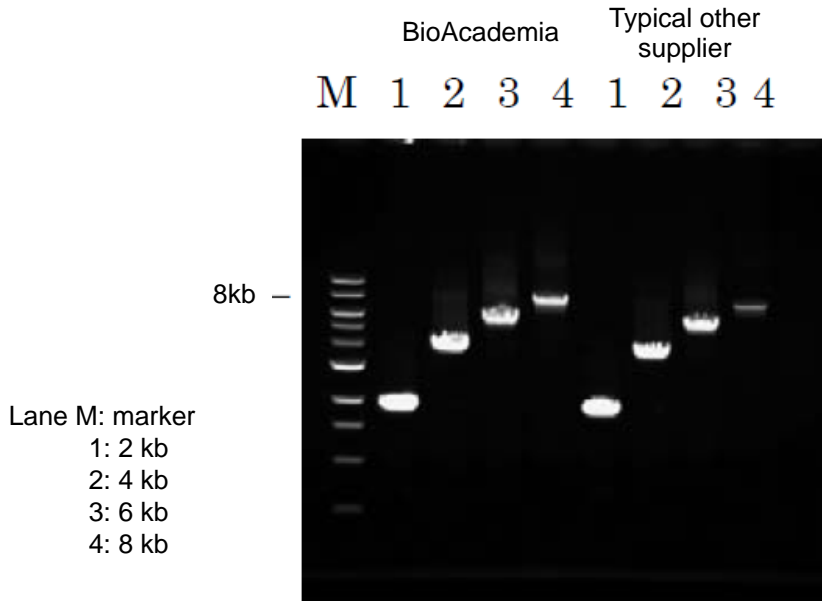


Fig.2 Amplification of λ DNA

For research use only. Not for clinical diagnosis.

Manufactured by BioAcademia, Inc.



COSMO BIO Co., LTD.
Inspiration for Life Science

TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN

http://www.cosmobio.co.jp/index_e.asp

E-mail: export@cosmobio.co.jp

Phone : +81-3-5632-9617

FAX : +81-3-5632-9618