Add Taq DNA Polymerase

Product Information

Product Code 17500

Provided with
1. Add Taq DNA Polymerase (5 U/μl) 100 μl
2. 10x Reaction Buffer 1.0 mL
3. 10 mM dNTP Mix. 1.0 mL

Storage Conditions -10°C ~ -30°C

Stability Stable for 2 years from manufacturing date.

Storage Buffer 20 mM Tris-HCl (pH 8.0), 100 mM KCl, 3 mM $MgCl_2$, 1 mM DTT, 0.1% Tween® 20 and 50% (v/v) glycerol

10 mM dNTP Mix Premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 2.5 mM

Description

Add Taq DNA Polymerase is a highly thermostable recombinant DNA polymerase derived from the thermophile, ***Thermus aquaticus.***
The molecular weight of the recombinant protein is 94kD. Add Taq DNA polymerase catalyzes the 5′ → 3′ synthesis of DNA but has no detectable 3′ → 5′ proofreading exonuclease activity, and possesses low 5′ → 3′ exonuclease activity, which results in a 3′-dA overhang on the PCR product. Normal maximum amplicon size is ~5kb and the polymerization rate is 1 kb per 1 min., but maximum rate is 2 kb per 1 min.

Applications

- General PCR
- Colony PCR
- Screening PCR
- Cloning

Nucleic Acid Amplification Procedure

1. Add the following components to a thin-walled PCR tube:

Nuclease-Free Water	x μl
10x Reaction Buffer	2 μl
10mM dNTP Mixture	2 μl
Forward primer (10 μM)	0.25 ~ 2 μl
Reverse primer (10 μM)	0.25 ~ 2 μl
DNA template	x μl
Add Taq DNA Polymerase (5 U/μl)	0.2 μl
Total reaction volume	20 μl

* Recommendation of template DNA concentration in a 20 μl reaction volume
1) Human genomic DNA: 0.1 ng ~ 1 μg
2) Bacterial, Plant genomic DNA: 0.1 ng ~ 100 ng
3) Plasmid DNA: 0.01 ng ~ 5 ng

2. PCR cycling

Initial denaturation	95°C, 5 min
PCR cycling (25 - 40 cycles)	95°C, 15 - 30 sec
	55 - 65°C, 15 - 30 sec
	72°C, 30 - 60 sec
Final extension	72°C, 5 min
Hold	12°C, ∞

Manufacture

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