DATA SHEET

EpisoZYme Taq DNA Polymerase with Standard *Taq* Buffer

Cat. No.	Pack Size	Conc.
EZ001S	500U	5U/ µL
EZ001M	1000U	5U/ µL
EZ001L	5000U	5U/ µL

EpisoZYme Taq DNA Polymerase is a recombinant DNA polymerase purified from *Escherichi coli* that carries the *Taq* DNA Polymerase gene of *Thermus aquaticus*. It has 5'-3' DNA polymerase activity and 5'-3' exonuclease activity.

Reagents Provided

- **Taq DNA Polymerase in Storage Buffer (**100 mM KCl, 10 mM Tris-HCl: pH 7.4, 0.1 mM EDTA, 1 mM DTT, 0.5% Tween 20, and 50% glycerol)
- **10x Reaction Buffer:** 100 mM Tris-HCl (pH 8.8 at 25°C), 500 mM KCl, 1% Triton X-100
- **25 mM $MgCl_2$ Solution**

Recommended PCR Reaction Mix

10x Buffer	2.5 µl	5 µl	1x
2.5 mM dNTPs	2 µl	4 µl	200 µM
10 µM For. Primer	1.25 µl	2.5 µl	0.5 µM (0.05–1 µM)
10 µM Rev. Primer	1.25 µl	2.5 µl	0.5 µM (0.05–1 µM)
Taq DNA Poly. (5U/ µl)	0.1 µl	0.2 µl	1 units / 50 µl PCR
25 mM $MgCl_2$	2 µl	4 µl	2 mM (1.5-2.5 mM)
Template DNA	variable	variable	<100 ng
Nuclease-Free Water	to 25 µl	to 50 µl	

Application

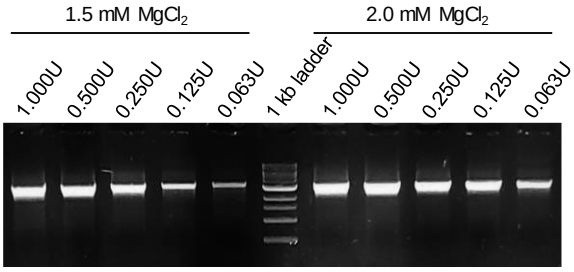
- Primer Extension
- Colony PCR
- Microarray Analysis

Thermocycling Conditions for a Routine PCR

Step	Temp.	Time
Initial Denaturation	95 °C	1 m
25-30 Cycles	95 °C 45-60 °C 74 °C	15 s 10-30 s 20 s/kb
Final Extension	74 °C	5 m
Hold	r. t.	

Quality Control Assays

PCR; cDNA cloned into a plazmid, 30 cycles of PCR amplification of 5 ng template DNA with *Taq* DNA Polymerase in the presence of 200 µM dNTPs and 0.2 µM primers in standard *Taq* reaction buffer results in the expected 3 kbp product.



Safety warnings and precautions

This product is designed for research purposes and *in vitro* use only. According to common laboratory safety practice, it is recommended to wear protective clothing, gloves and safety glasses.

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