

## Taq DNA Polymerase

**Description:** Taq DNA Polymerase is a 94 kD thermostable enzyme. Its optimum temperature of activity is between 55° C and 75° C. The enzyme lacks 3' to 5' exonuclease (proof reading) activity but has an inherent 5' to 3' exonuclease activity.

**Specification:** The enzyme is supplied at concentrations of **1 U/μl, 3 U/μl, 5 U/μl.**

**Taq DNA Polymerase Buffers:** Refer the chart for buffer composition.

Buffer supplied at **10X** concentration.

**Storage and Dilution buffer:**

20 mM Tris-HCl (pH 8), 100 mM KCl, 0.1 mM EDTA, 1 mM DTT, 0.5% Tween 20 (v/v), 0.5% Igepal and 50% Glycerol (v/v).

**Store at -20°C**

**Application:**

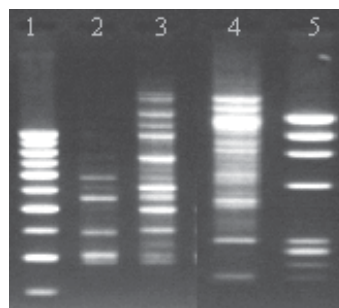
- Amplification of DNA fragments of varied sizes ranging from about 100 bp to 3kb by polymerase chain reaction.
- The enzyme can be used in RAPD studies to detect polymorphism in several species.

Taq DNA Polymerase can be supplied with:

- 10X buffer containing 15 mM MgCl<sub>2</sub> **OR**
- 10X buffer and separate vial of 25 mM MgCl<sub>2</sub>

**Performance Test:**

1. Taq DNA Polymerase is extensively tested for its performance in several **PCR Amplifications, RAPD, RT-PCR.**
2. Taq DNA Polymerase is also tested by nested PCR method using WSSV detection kit



**RAPD of plant samples using a 10 mer primer**

- Lane 1 : 100 bp ladder.  
 Lane 2&3 : Sugarcane variants.  
 Lane 4 : Rice variant.  
 Lane 5 : ØX/ Hae III Digest.

## Taq DNA Polymerase Buffers

Buffer	Conc.	10X Buffer Composition
Taq Buffer A	10X	100 mM Tris (pH9.0) 500 mM KCl 15 mM MgCl <sub>2</sub> 0.1% Gelatin
Taq Buffer B	10X	100 mM Tris (pH9.0) 500 mM KCl 0.1% Gelatin
Taq Buffer E	10X	100 mM Tris (pH 9.0) 500 mM KCl 15 mM MgCl <sub>2</sub> 1% TritonX-100
Taq Buffer F	10X	100 mM Tris (pH 9.0) 500 mM KCl 1 % TritonX-100

**Ordering Information:**

Product	Size	Cat #
Taq Buffer A	1 ml	105876
Taq Buffer B	1 ml	105878
25 mM MgCl <sub>2</sub>	1 ml x 2	105881
Taq Dilution Buffer	1 ml x 2	105883
Taq Buffer E	1 ml	107627
Taq Buffer F	1 ml	107628

**Store at -20°C**