

**DATASHEET**

Version: 2013-09-10

**Green Taq DNA Polymerase****Cat. No.:** E00043**Size:** 1,000 U**Description:**

Green Taq DNA Polymerase is designed to increase the stability of the Taq enzyme for more convenient transport and applications. The polymerase (1000 U) is designed for 400 rxns if 2.5 U are used per 50 ul PCR reaction. It can be stable for six months if stored at 4°C or for up to one month without significant loss of activity at ambient temperature. Our technology can increase the stability of Green Taq DNA at higher temperature (72°C). The higher yield PCR product can be harvested in long PCR amplification.

**Key Feature:**

- High Stability: The enzyme remains stable for more than six months when stored at 4°C or for one month when stored at room temperature (25°C) without significant activity loss.
- High PCR Yield: The Green Taq DNA polymerase has longer enzyme half-life and therefore increases the PCR yield when amplifying long DNA
- Terminal Transferase Activity: Taq DNA polymerase has terminal transferase activity that results in the addition of a single nucleotide (adenosine) at 3'-end of the extension product. >Stop refrigerating and save energy.

**Unit Definition:**

One unit is defined as the amount of enzyme that can

incorporate 10 nmol of dNTP into acid-insoluble material in 30 minutes at 74°C.

**PCR Reaction Buffer (with Mg<sup>2+</sup>)**

100 mM Tris-HCl, 15 mM MgCl<sub>2</sub>, 500 mM KCl and 1% Triton X-100, pH 8.3 (4°C).

**Storage:**

This product is shipped at ambient temperatures for several weeks. Green Taq DNA Polymerase will remain stable for at least six months if stored at 4°C and for at least one year if stored at -20°C.

**Formulation:**

The polymerase is designed for 400 rxns if 2.5 U are used per 50 ul PCR reaction. It can be stable for six months if stored at 4°C or for up to one month without significant loss of activity at ambient temperature.

**Applications:**

The applications of Green Taq DNA Polymerase include the following:

- PCR\* (For simple templates, this enzyme can be optimized for amplification of PCR products up to 10 kb; However, for complex templates, this enzyme can be used for amplification of PCR products up to 3 kb.)
- 3' A-tailing of blunt ends (T/A-cloning)
- Primer extension
- DNA labeling reactions