

Taq DNA Polymerase, concentrated

Cat. No. E00012**Size:** 2,500 U**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.

PRODUCT INFORMATION

Description

Taq DNA Polymerase is a thermostable DNA polymerase isolated from an E. coli strain that carries the Taq DNA polymerase gene. Taq DNA Polymerase is the most common polymerase used in PCR*. In some cases, such as RAPD PCR, adding large volume of general Taq DNA polymerase (5 U/μl), which has a high concentration of glycerol in its storage buffer, will increase the glycerol concentration in the reaction mix, interfering with PCR performance. The use of concentrated Taq DNA Polymerase (25 U/μl), with a far slimmer dose of glycerol, can prevent poor PCR efficiency.

Note: The concentrated Taq DNA Polymerase is supplied with 10X reaction buffer containing 15 mM magnesium chloride. The dNTP (10 mM) mixture may be ordered separately

10 X reaction Buffer (with Mg²⁺)

500 mM KCl, 100 mM Tris HCl (pH 9.0 at 25°C), 15 mM MgCl₂, 1% Triton X-100 Buffer. This buffer is optimized for use with 200 μM dNTPs.

Note: If another reaction buffers are used with Taq DNA Polymerase, Triton X-100 must be added to a final concentration of 0.1% to ensure high enzyme activity with Taq DNA Polymerase;

Concentration

Supplied in 25 units/μl in 20 mM Tris HCl (pH 8.0), 0.1 mM EDTA, 1 mM DTT, 0.1% Triton X-100 and 50% glycerol.

Storage

Store the product at -20°C.

Formulation

GenScript Taq DNA Polymerase has been formulated using GenScript's proprietary technology. The enzyme can be shipped at room temperature or stored at 37°C for seven days without any significant loss of activity.

Key Feature

- Terminal transferase activity. Taq DNA Polymerase has terminal transferase activity which results in the addition of a single nucleotide (adenosine) at 3' end of the extension product.
- High-purity. No contamination activity has been detected in standard test reactions.

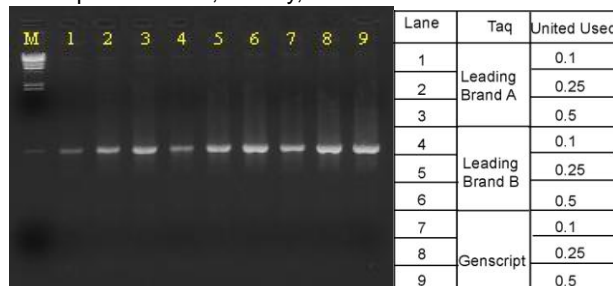
Applications

Taq DNA Polymerase can be used in most applications including the following:

- PCR*
- 3' A-tailing of blunt ends
- Primer extension
- DNA sequencing

QC Tests

PCR performance, activity, nuclease.



* The PCR process is covered by US. Patents Nos. 4683195 and 4683202, issued to Cetus and owned by Hoffman-La Roche Inc. GenScript does not encourage or support the unauthorized use of the PCR process. Use of this product is recommended for persons who either have a license to perform PCR or are not required to obtain a license. Sale of this product is restricted to regions or countries where native *Taq* DNA polymerase patents have been invalidated.

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