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Taq DNA Polymerase, concentrated

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Publication

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Quantity:	2500 U
Species:	Thermus aquaticus
Application:	Polymerase Chain Reaction (PCR)

Product Details

Characteristics:	
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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/ μ L), 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/ μ L), with a far slimmer dose of glycerol, can prevent poor PCR efficiency

Application Details

Application Notes:	The applications of Taq DNA polymerase are as follows: PCR 3'A-tailing of blunt ends Primer
	extension DNA sequencing.
Comment:	Terminal transferase activity: Taq DNA Polymerase has terminal transferase activity, which
	results in the addition of a single nucleotide (adenosine) at the 3' end of the extension product
	High purity: No contamination activity has been detected in standard test reactions.
	Terminal Transferase Activity: A single nucleotide (adenosine) is added to the 3' end of the
	extension product.
	High-purity: No contamination activity has been detected in standard test reactions.
	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.

Application Details

Restrictions:	For Research Use only
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Handling	
Format:	Liquid
Buffer:	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.Important: 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,ConcentrationSupplied 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:	-20 °C
Storage Comment:	Store the product at -20°C. The enzyme can be shipped at room temperature or stored at 37°C
	for seven days without any significant loss of activity.
Publications	
Product cited in:	Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, (
	1991)