

PCR Tools

USB® VeriQuest™ Taq DNA Polymerase

- Chemically modified Taq polymerase for hot start PCR
- Minimize the amplification of non-specific products and primer dimers
- Exceptional performance, offering high specificity and sensitivity
- Room temperature reaction set-up

USB VeriQuest Taq DNA Polymerase is a highly purified, hot start Taq polymerase that has no polymerase activity prior to the initial heat activation step, ensuring there is no amplification of non-specific primers, such as primer-dimers. This feature allows the convenience of reaction assembly at room temperature as well as higher specificity and sensitivity. The initial incubation step of 95°C for 10 minutes before PCR cycling removes the blocking chemical moiety resulting in activation of the polymerase.

Properties:

VeriQuest Taq DNA Polymerase is a chemically modified, full length Taq DNA polymerase for hot start

Purity:

Free from detectable non-specific nucleases.

Storage Buffer:

20 mM Tris-HCl, pH 8.5, 100 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% glycerol and stabilizers.

Unit Definition:

One unit of enzyme is defined as the amount that catalyzes the incorporation of 10 nmol of total nucleotide into acid-insoluble form in 30 minutes at 74°C.

Assay Conditions:

The reaction mixture contains 25 mM TAPS, pH 9.3 (at 25°C), 50 mM KCl, 2 mM MgCl₂, 1 mM β-ME, 200 μM each dATP, dGTP, dTTP, 100 μM [α-³²P]-dCTP (0.05 to 0.1 Ci/mmol), 250 μg/ml activated salmon sperm DNA and VeriQuest Taq DNA Polymerase. After incubation at 74°C for 10 minutes, acid insoluble material is determined (50 μl reaction volume).

Functional Assay:

Functionally tested for PCR according to the standard Tested User Friendly™ PCR protocol. This protocol is based upon the amplification of a 500 bp lambda DNA.

Concentration:

5 units/ul

Buffers:

Functionally Tested VeriQuest Taq 10X PCR Reaction Buffer (included, PN 71188):

150 mM Tris-HCl, pH 8.0, 500 mM KCl, 15 mM MgCl₂

Functionally Tested MgCl₂ (included, PN 71167):

25 mM MgCl₂ solution

Storage:

Shipped on dry ice. Store at -20°C.

VeriQuest Taq DNA Polymerase

Product code	Pack size
71170	50 units
	250 units
	1,000 units
	5,000 units

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