



# Fisher Biotec Enzymes- Taq



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Fisher Biotec offers a comprehensive range of quality products at competitive prices. We specialize in the manufacture of leading-edge products for Molecular Biology, Genomics and Proteomics research.

## Taq\* DNA Polymerase

5'-3' Thermostable DNA Polymerase isolated from the extreme thermophilic bacteria *Thermus thermophilus* YT1. Taq DNA Polymerase is a thermostable enzyme which replicates DNA at 74°C and remains functional after incubation at 95°C. The ability of this enzyme to survive multiple rounds of temperature cycling is the basis of the PCR reaction and thermal cycle sequencing. It is supplied with 25mM MgCl<sub>2</sub> (1ml) and 10x PCR Reaction Buffer (1ml).

This enzyme can undergo several freeze/thaw cycles without loss of activity. This allows prior preparation of complete amplification mixtures (minus target DNA) that can be stored at -20° or -80° in single tubes under paraffin oil providing convenient and consistent reactions and assisting in minimising problems due to cross contamination.

**Concentration:** 5 units/μl

(One unit is the amount of enzyme that is required to incorporate 10 nmoles of dNTPs into acid-insoluble material at 70°C in 30 minutes using 'activated' herring sperm DNA as substrate.)

**10x Reaction Buffer:** 670mM Tris-HCl (pH 8.8 at 25°C), 166mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 4.5% Triton X-100, and 2mg/ml Gelatin.

**Applications:** PCR-based DNA amplification, cycle sequencing, amplification of cloned inserts in vectors, and primer extensions.

Catalog No	Pack Size
TAQ-1	250 units
TAQ-2	500 units (2 x 250 units)
TAQ-3	1000 units (4 x 250 units)
TAQ-3-1	1000 units (1x1000 units)
TAQ	Your specification

## Taq\* F1 DNA Polymerase

Taq\* F1 DNA Polymerase is a highly purified recombinant thermostable DNA Polymerase that has been isolated from *E.coli* carrying a vector encoding the *Thermus aquaticus* DNA polymerase gene. The enzyme possesses a highly processive 5'-3' DNA polymerase activity with optimum activity achieved at 74°C. The enzyme exhibits high thermal stability in withstanding prolonged incubations at elevated temperatures (95°C). Taq\* F1 DNA Polymerase lacks 3'-5' exonuclease activity. It is supplied with 25mM MgCl<sub>2</sub> (1ml) and 10x PCR Reaction Buffer (1ml).

This enzyme can undergo several freeze/thaw cycles without loss of activity. This allows prior preparation of complete amplification mixtures (minus target DNA) that can be stored at -20° or -80° in single tubes under paraffin oil providing convenient and consistent reactions and assisting in minimising problems due to cross contamination.

**Concentration:** 5 units/μl

(One unit is the amount of enzyme that is required to incorporate 10 nmoles of dNTPs into acid-insoluble material at 70°C in 30 minutes using 'activated' herring sperm DNA as substrate.)

**10x Reaction Buffer:** 670mM Tris-HCl (pH 8.8 at 25°C), 166mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 4.5% Triton X-100, and 2mg/ml Gelatin.

**Applications:** PCR-based DNA amplification, cycle sequencing, amplification of cloned inserts in vectors, and primer extensions.

Catalog No	Pack Size
TF1-1	250 units
TF1-2	500 units (2 x 250 units)
TF1-3	1000 units (4 x 250 units)
TF1-3-1	1000 units (1 x 1000 units)
TF1	Your specification

# Enzymes - Taq

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## Taq\* F2 DNA Polymerase

Taq\* F2 DNA Polymerase is a highly purified recombinant thermostable DNA Polymerase that has been isolated from E.coli carrying a vector encoding the Thermus aquaticus DNA polymerase gene. The enzyme possesses a highly processive 5'-3' DNA polymerase activity with optimum activity achieved at 74°C. The enzyme exhibits high thermal stability in withstanding prolonged incubations at elevated temperatures (95°C). Taq\* F2 DNA Polymerase lacks 3'-5' exonuclease activity. It is supplied with 25mM MgCl<sub>2</sub> (1ml) and 10x PCR Reaction Buffer (1ml).

This enzyme can undergo several freeze/thaw cycles without loss of activity. This allows prior preparation of complete amplification mixtures (minus target DNA) that can be stored at -20° or -80° in single tubes under paraffin oil providing convenient and consistent reactions and assisting in minimising problems due to cross contamination.

**Concentration:** 5 units/μl

(One unit is the amount of enzyme that is required to incorporate 10 nmoles of dNTPs into acid-insoluble material at 70°C in 30 minutes using 'activated' herring sperm DNA as substrate.)

**10x Reaction Buffer:** 100mM Tris-HCl (pH 8.3 at 25°C), and 500mM KCl.

**Applications:** PCR-based DNA amplification, cycle sequencing, amplification of cloned inserts in vectors, primer extensions, and microarray applications.

Catalog No	Pack Size
TF2-1	250 units
TF2-2	500 units (2 x 250 units)
TF2-3	1000 units (4 x 250 units)
TF2-3-1	1000 units (1 x 1000 units)
TF2	Your specification

## TAQ-Ti Heat-Activated DNA Polymerase

TAQ-Ti is a highly purified recombinant thermostable DNA Polymerase that has been isolated from E.coli carrying a vector encoding the Thermus aquaticus DNA polymerase gene. The TAQ-Ti polymerase mix contains a substance which blocks polymerase activity prior to the on-set of thermal cycling. This prevents primer-dimers and other artifacts resulting from low-level synthesis from nonspecifically primed sites. The antibodies are quickly inactivated at the increased temperature of thermal cycling. TAQ-Ti polymerase requires no prolonged heating or denaturing step as do other hot start methods making TAQ-Ti polymerase more convenient and easy to use. It is supplied with 10x Reaction Buffer and 25mM MgCl<sub>2</sub> solutions.

**Concentration:** 5 units/μl

(One unit is the amount of enzyme required to incorporate 10 nmols of dNTP s into acid-insoluble material at 72°C in 30 minutes using 'activated' herring sperm DNA as substrate.)

**10x Reaction Buffer:** 200mM Tris-HCl pH 8.5 (at 25°C), and 500mM KCl.

**Applications:** PCR-based DNA amplification, Cycle Sequencing, amplification of cloned inserts in vectors, primer extensions, and all applications requiring high specificity and hot-start PCR.

*Catalog No	Pack Size
TAQ-Ti-1	250 units
TAQ-Ti-2	500 units (2 x 250 units)
TAQ-Ti-3	1000 units (4 x 250 units)
TAQ-Ti-3-1	1000 units (1 x 1000 units)

\*Please quote Catalog No when ordering

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Page 2

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