# **DNA Amplification**

## Reagents - Tag Polymerase

#### DNA polymerase, Platinum® Tag





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Ideal for automatic 'hot-start' amplification of DNA fragments with improved specificity over Taq DNA polymerase.

Derived from recombinant *Taq* DNA polymerase by binding of a thermolabile inhibitor containing monoclonal antibodies to *Taq* DNA polymerase. During the initial denaturation step of PCR\*, the inhibitor is denatured and active *Taq* DNA polymerase is released into the reaction

- Improved specificity and yields of PCR compared to Taq DNA polymerase without 'hot-start'
- PCR products up to 5kb in size
- Room temperature reaction assembly

Catalogue No	Reactions per pack
VX10966018	100
VX10966026	250
VX10966034	500
VX10966083	5,000

#### DNA polymerase, Taq, AccuPrime™





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For amplification of nucleic acid templates with antibody-mediated hot-start for improved PCR\* specificity over other hot-start DNA polymerases. Multiplex PCR\*, TOPO TA Cloning®, allele-specific amplifications, and PCR from bacterial colonies in high-throughput applications.

Platinum® anti-Taq DNA polymerase antibodies inhibit polymerase activity, providing an automatic hot-start, while a thermostable accessory protein enhances specific primertemplate hybridisation during every cycle of PCR. This combination improves the fidelity of Taq DNA Polymerase by two-fold and is ideal for high-throughput screening and multiplex PCR. AccuPrime™ Taq DNA polymerase broadens primer annealing temperatures, giving you optimal performance between 55°C and 65°C. AccuPrime™ SuperMix I is optimised for small genomic DNA amplicons (≤200 bp), plasmid DNA, and cDNA templates. AccuPrime™ SuperMix II is optimised for genomic DNA (200bp-4 kb) templates. With AccuPrime™ you can:

- Control mispriming at every cycle to get single-band PCR products
- Increase the number of targets in multiplex PCR to save time and reagents
- · Eliminate reaction optimisation and primer set redesign
- Conveniently assemble reactions at room temperature

High specificity PCR: multiplex PCR, colony PCR, high-throughput PCR applications

Catalogue No	Reactions per pack
VX12339016	200
VX12339024	1,000

#### High fidelity PCR\*, Platinum® Tag DNA polymerase





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Amplification of DNA from complex genomic, viral, and plasmid templates; and RT-PCR (1). Platinum® *Taq* high fidelity is especially effective for high fidelity applications such as cloning or mutagenesis.

Platinum® *Taq* DNA polymerase high fidelity is ideal for amplification of DNA fragments where high yields and robust amplification are required. High fidelity is provided by a mixture of Platinum® *Taq* DNA polymerase and the proofreading (3 to 5 exonuclease activity) enzyme *Pyrococcus* species GB-D polymerase (Table 1). PCR specificity is improved with the incorporation of Platinum® automatic hot-start technology.

With Platinum® Taq high fidelity you'll get:

- Greater than six times higher fidelity than *Taq* DNA polymerase
- Amplification of fragments up to 15kb
- Room temperature reaction assembly

One unit of Platinum® *Taq* DNA polymerase high fidelity is the amount of enzyme required to incorporate 10nmoles of deoxyribonucleotide into acid-precipitable material in 30min. at 74°C.

Catalogue No	Reactions per pack
VX11304011	100
VX11304029	500
VX11304102	5,000

### DNA polymerase, *Taq*, AccuPrime™, high fidelity PCR







Amplifies nucleic acid templates using antibody-mediated hot-start, a blend of *Taq* DNA polymerase and proofreading enzyme, and AccuPrime™ accessory proteins for improved PCR\* fidelity, yield, and more specificity over other hot-start DNA polymerases.

High fidelity is achieved by a combination of Platinum® anti-*Taq* DNA polymerase antibodies that inhibit polymerase activity, providing an automatic 'hot-start', and the proofreading (3'to 5'exonuclease activity) enzyme *Pyrococcus* species GB-D. The thermostable AccuPrime™ accessory proteins enhance specific primer-template hybridisation during every cycle of PCR, preventing mispriming and enhancing PCR specificity and yield.

With AccuPrime™ *Taq* DNA polymerase high fidelity you'll get:

- The highest specificity and yield for the most robust PCR amplification
- 9-fold higher fidelity than Taq DNA polymerase alone
- Mimimal optimisation steps, even with non-optimised primer sets
- Efficient amplification of targets over a broad size range up to 20kb

Catalogue No	Reactions per pack
VX12346086	200
VX12346094	1,000

#### DNA polymerase, AccuPrime® GC-rich





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Provides high-yield, high-specificity amplification of difficult to amplify templates, such as those containing >65% GC content.

- AccuPrime™ accessory proteins for improved PCR\* specificity
- High yields for targets up to 5kb in length
- Sensitivity down to 5ng of template DNA
- A choice of buffers for amplifying genomic DNA targets (Buffer A) or cDNA, plasmid, and lambda targets (Buffer B)

PCR of difficult or GC-rich templates

Catalogue No	Reactions per pack
VX12337016	200
VX12337024	1,000