

MOLECULAR BIOLOGY ENZYMES & REAGENTS

- AviTaq™
- Aviklen™
- AviHot™
- AviRT™
- AviPfu™
- AviLong™
- AviFix™



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AviTaq™

Taq DNA polymerase

AviTaq™ is a chromatography highly purified enzyme with an optimized buffer to give you a specific band. It is provided with an exclusive 10x reaction buffer to improve sub-optimal PCR caused by templates, high degree of secondary structure or GC-rich regions.



Advantages:

Highly chromatography purified.

E. Coli DNA free.

Suitable for conventional PCR and TA cloning PCR.

AviKlen™

Klentaq DNA polymerase

AviKlen™ lacks the N-terminal portion of the gene, encoding *Thermus aquaticus* (Taq) DNA polymerase, leaving a highly active and even more thermal stable DNA polymerase activity. This enzyme keeps significant activity after exposure to 99 °C.



Advantages:

Wide range of optimal MgCl₂ concentration.

Two time lower error rate than Taq.

Amplicons are T/A Cloning compatible.

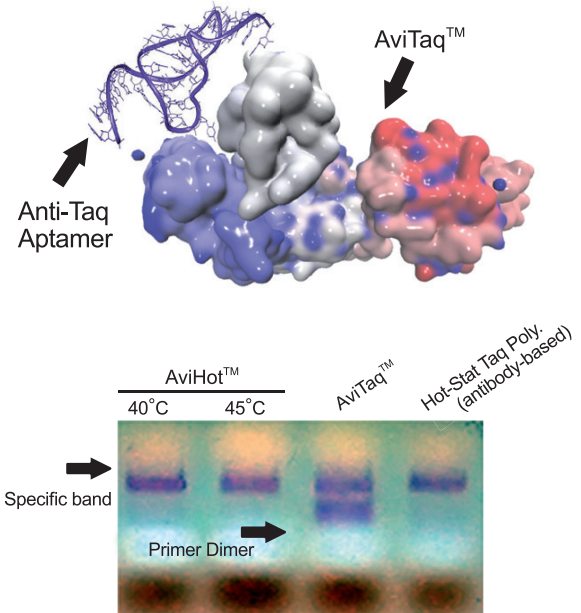
Mutation analysis with mutation-specific oligonucleotides.

AviHot™

Apta Hot-Start Taq DNA Polymerase

AviHot™ a mixture of Taq DNA polymerase and a temperature sensitive, aptamer based inhibitor.

The inhibitor binds reversibly to the enzyme, inhibiting polymerase activity at temperatures below 40 °C, but releases the enzyme during normal PCR cycling conditions.



Advantages:

Reduction of primer dimers.

No inactivation time.

Avoid non-specific bands.

More stable than antibody based Hot-start taqs.

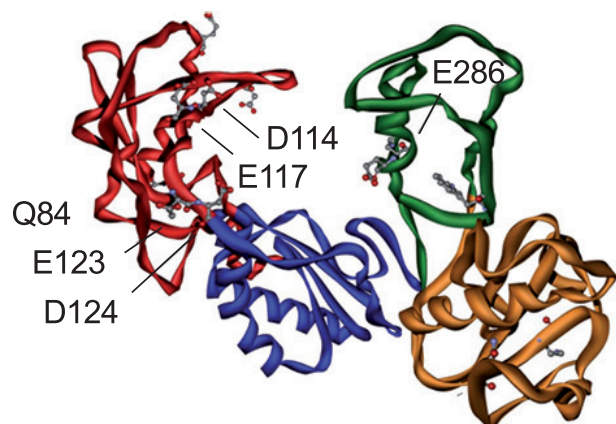
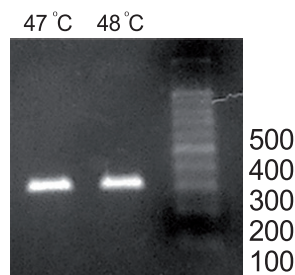
More economical than antibody based Hot-start taqs.

AviRT™

M-MuLV Reverse Thermo-resistant H Minus Transcriptase

Recombinant, genetically modified RNA-dependent DNA polymerase, chromatography purified, no RNase H activity, Optimal activity at 47 °C. Reverse Transcriptase has no RNase H activity.

Therefore, degradation of RNA does not occur during first strand cDNA synthesis, resulting in higher yields of full-length cDNA from long templates compare to other reverse transcriptases.



Advantages:

Optimal activity at 47- 48°C.

RT of RNAs with a high degree of secondary structure.

No RNase H activity.

More stable than Wild type MMuLV.



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AviPfu™

Pfu DNA polymerase

Recombinant highly purified protein of Pfu DNA polymerase exhibits 3' > 5' proofreading activity, resulting in over 10-fold higher PCR fidelity than possible with Taq DNA Polymerases.

Advantages:

Pure recombinant enzyme.

Over 10-fold higher PCR fidelity than Taq.

The enhanced performance by new formula buffer.

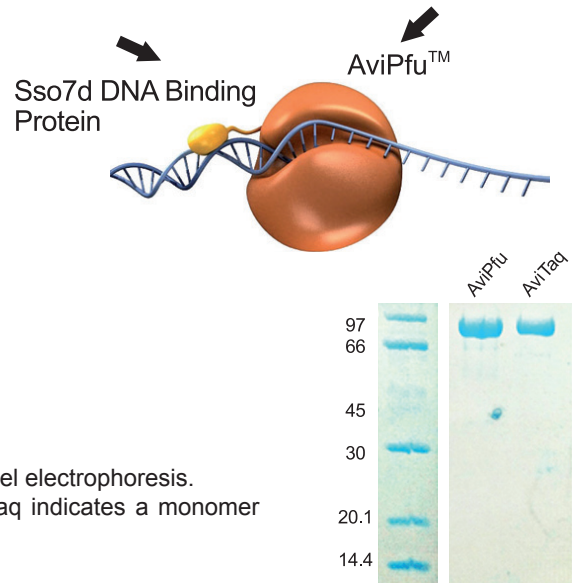


Fig: Analysis of AviTaq™ and AviPfu™ on 12.5% polyacrylamide gel electrophoresis. AviPfu™ shows sharp band with a Molecular Weight 90 kDa. Taq indicates a monomer protein with Molecular Weight 94 kDa.

AviLong™

Pfu DNA polymerase

A chimeric Pfu which has a DNA binding protein at the N-terminal portion of the gene.

This enzyme keeps significant activity after exposure to 99 °C or repeated exposure to 98 °C with more processivity and extension rate than Pfu DNA polymerase.

Advantages:

Faster than Pfu.

Amplification of GC rich templates.

It is suitable for PCR and primer extension reaction that requires high fidelity when the PCR fragment is relatively higher than 3kb.

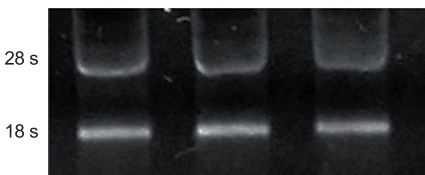




AviFix™ RNA fix solution

AviFix™ is an aqueous, non toxic, tissue and cells storage solution intended for the preservation of RNA for later isolation. It is a preservation solution that allows recovery of intact RNA from tissues and cell culture. Samples in AviFix™ solution can be stored indefinitely at -20 °C with no RNA degradation. AviFix™ solution can be used for the storage of tissues, cells, bacteria and yeasts. AviFix™ compatible with most RNA isolation methods.

RNA isolated from three cell
culture sample stored at:
-20 °C 4 °C 1W 40 °C 6W





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Ver.2401