

# BIOTAQ™ DNA Polymerase and Mixes

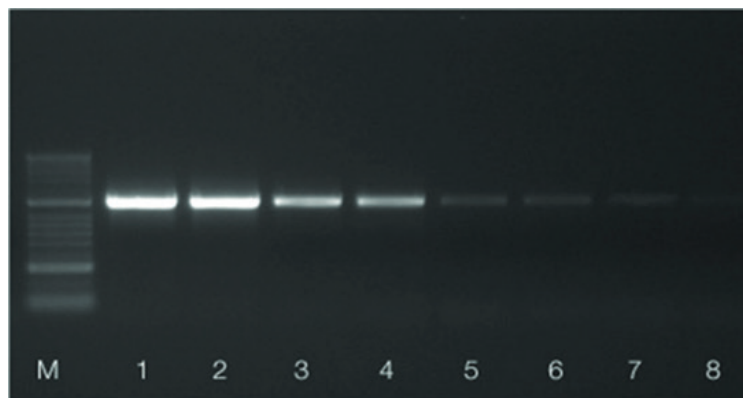
For Reliable Amplification

- **Robust:** reliable amplification ideal for setting up new procedures
- **Simple:** designed for easy optimization of PCR applications
- **Versatile:** leaves an 'A' overhang, suitable for TA cloning
- **Flexible:** ideal for amplifying a wide range of targets up to 5 kb
- **Convenient:** BioMix™ and BioMix™ Red Mix are all-in-one-tube mastermixes that improve the speed, convenience and accuracy of PCR

**BIOTAQ™ is a highly purified, thermostable DNA polymerase offering high yield over a wide range of PCR templates and a good choice for routine PCR assays.**

BIOTAQ™ DNA Polymerase is a robust preparation, supplied with a high-quality reaction buffer and MgCl<sub>2</sub>, allowing for consistent delivery of high-yields with minimal background. BIOTAQ™ DNA Polymerase exhibits deoxynucleotidyl transferase activity that results in the addition of an 'A' overhang at the 3'-end, such that the PCR product is suitable for effective integration into TA cloning vectors.

BioMix™ and BioMix™ Red contain all the reagents required for easy PCR set-up. Both BioMix™ and BioMix™ Red are conveniently supplied in one tube, reducing the number of pipetting steps required, facilitating greater efficiency, reproducibility and ease for automation.

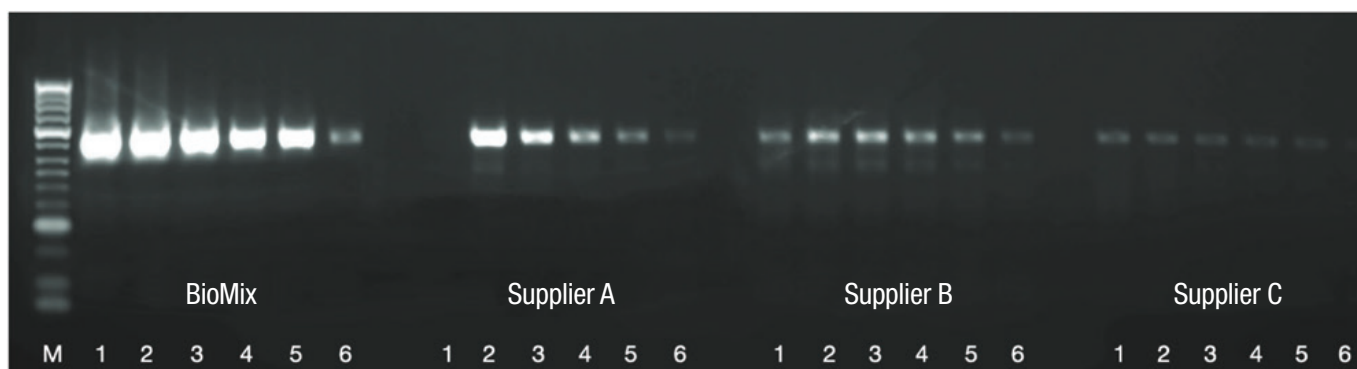


**Fig. 1 Robust amplification of mouse genomic DNA**

A 1.4 kb and a 1.6 kb fragment of the Rn18s gene, a 500 bp fragment of FABI gene and a 350 bp fragment of IL-2 gene (lanes 1 – 4, HyperLadder 50 bp (M)) were amplified from mouse genomic DNA using BIOTAQ DNA Polymerase under standard PCR cycling conditions. The results illustrate the ability of BIOTAQ DNA Polymerase to amplify different sized fragments, resulting in high-yields making it ideal for routine PCR analysis.

## APPLICATIONS

- Routine PCR applications
- TA cloning



**Fig. 2 Sensitivity of BioMix**

A 1.8 kb fragment of the Pn18s gene was amplified using BioMix and a 2-fold serial dilution of mouse genomic DNA from 50 ng to 1.5 ng (lanes 1 – 6 respectively, HyperLadder 50bp (M)) under standard PCR cycling conditions. The results illustrate that BioMix delivers high-yield and increased sensitivity with low template concentrations.

## ROBUST PERFORMANCE

The exceptional quality and purity of BIOTAQ™ DNA Polymerase ensures high-performance and delivers high-yields with minimal background (Fig. 1) over a wide range of PCR templates and is a good choice for routine PCR assays for amplicons up to 5 kb.

## SIMPLE OPTIMIZATION

BIOTAQ™ DNA Polymerase is supplied with a 10x NH<sub>4</sub>-based reaction buffer, which provides optimal conditions for routine PCR. Additional MgCl<sub>2</sub> is provided separately however, to allow reaction conditions to be adjusted if necessary to suit the template.

## DIRECT GEL LOADING

BIOTAQ™ is also supplied as BioMix™ Red, which includes an inert red dye that increases the visual contrast between the reagent and the reaction vessel for improved convenience and pipetting accuracy. The red dye also enables samples to be loaded on to a gel after the PCR without the need to add loading buffer.



I have always used Meridian Taq polymerases, from starting my PhD in 2000 up until now in my own lab group. The products are versatile, cost-effective and always reliable. The basic Taq is fantastic for almost all applications and the more specialized enzymes are great value when a hard-to-amplify target is encountered. I would strongly recommend Meridian Taq Polymerases.”

**MARK CHAPMAN, UNIVERSITY OF SOUTHAMPTON, SOUTHAMPTON UK**

## Ordering Information

| BIOTAQ™ DNA Polymerase and Mixes | Size          | Cat. #    |
|----------------------------------|---------------|-----------|
| BIOTAQ DNA Polymerase            | 500 Units     | BIO-21046 |
|                                  | 2500 Units    | BIO-21047 |
| BioMix                           | 500 Reactions | BIO-25012 |
| BioMix Red                       | 500 Reactions | BIO-25006 |

For related products such as nucleotides, agarose and molecular weight markers visit [www.bioline.com](http://www.bioline.com)

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