

Perfectly Sound Results

MyFi™ DNA Polymerase

- Higher-fidelity, specifically developed for TA cloning
- Novel antibody-based hot-start polymerase
- Amplifies fragments up to 10kb
- Industry-leading novel buffer system
- Available as an all-in-one master mix

MyFi™ is a novel, antibody-mediated, hot-start enzyme with unique properties that offers 3.5x higher fidelity than native *Taq* and enhanced sensitivity and specificity, making MyFi a superior choice for cloning. The polymerase is supplied with MyFi Buffer, a highly optimized proprietary formulation, containing ultra-pure dNTPs, MgCl₂ and enhancers, specifically formulated and validated to enhance your results.

MyFi is ideally suited for difficult PCR amplification of targets with variable lengths up to 10kb, for example, amplification of cDNA libraries, complex genomic fragments (Fig. 1), targets with high GC-content (fig. 2) and low-copy assays which require both high processivity and higher fidelity. MyFi has the added convenience of room temperature reaction assembly, to avoid non-specific amplification and primer-dimer formation. MyFi generates PCR products with 3'-A overhangs, perfect for TA cloning.

Higher fidelity amplification of complex DNA

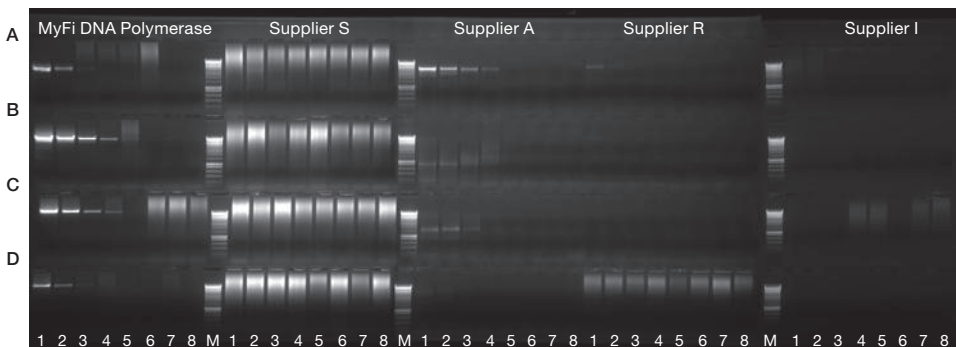


Fig. 1 Amplification of complex DNA up to 10kb

A) A 3.9kb fragment of α -1-antitrypsin (*A1-F3*) gene, B) a 7.0kb fragment, C) a 9.0kb fragment and D) a 10.0kb fragment (respectively) of human (*β -globin*) *HbG* gene, were amplified using MyFi DNA Polymerase and the results were compared with amplifications using high-fidelity hot-start DNA polymerases from other suppliers. A serial dilution of human genomic DNA (5ng, 1ng, 200pg, 40pg, 8pg, 1.6pg, 0.32pg and 0pg, lanes 1-8 respectively), was incubated for 3 min at 95°C (or according to the manufacturer's protocol) followed by 35 cycles of 30s at 95°C, 30s at 60°C and 5min at 72°C respectively. Marker is HyperLadder I (M). The results illustrate that MyFi can be used to amplify products up to 10kb, in contrast to many of the competing high-fidelity hot-start DNA polymerases.



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MyFi™ DNA Polymerase

Robust amplification of GC-rich human genomic DNA



Fig. 2 Greater reliability with GC-rich DNA

A) A 525bp fragment of human epidermal growth factor receptor (*EGFR*) gene (62% GC), B) a 750bp fragment of translation factor p64 (*myc*) gene (64% GC), C) a 900bp fragment of angiotensin II receptor type I (*AGTR1*) gene (43% GC), D) a 1.2kb fragment of *EGFR* gene (62% GC), were amplified using MyFi DNA Polymerase and the results were compared with amplifications using high-fidelity hot-start DNA polymerases from other suppliers. A serial dilution of human genomic DNA (5ng, 1ng, 200pg, 40pg, 8pg, 1.6pg, 0.32pg and 0pg, lanes 1-8 respectively), was incubated for 3 min at 95°C (or according to the manufacturer's protocol) followed by 35 cycles of 15s at 95°C, 57°C and 72°C respectively. Marker is HyperLadder I (M). The results illustrate that MyFi out-performed high-fidelity polymerases from other supplier in this complex human genomic DNA assay.

MyFi Mix is a ready-to-use 2x mix, containing all the reagents (including enhancers and stabilizers) necessary for trouble-free PCR reaction set-up. The unique MyFi Mix, supplied in a convenient single tube, reduces the number of pipetting steps and improves efficiency, throughput and reproducibility (fig. 3).

Highest efficiency and sensitivity

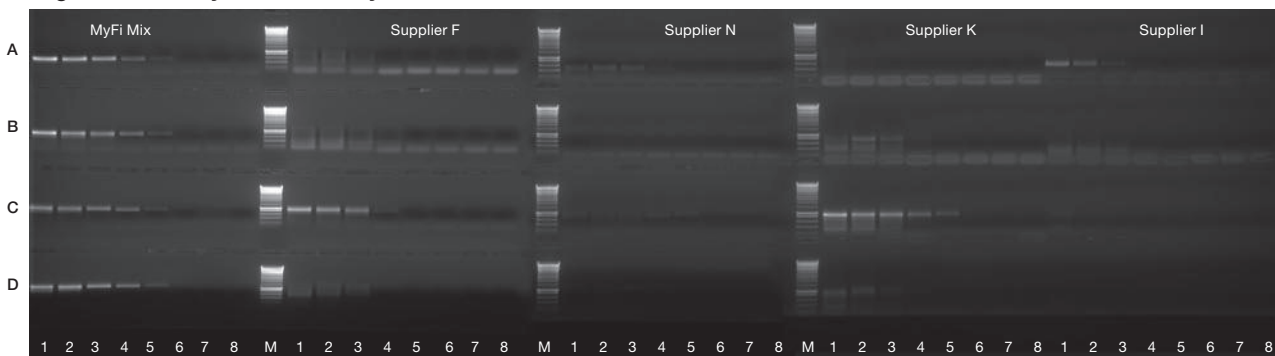
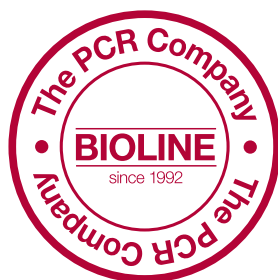


Fig. 3 Efficiency and sensitivity of high-fidelity polymerase mixes

A) A 525bp fragment of human epidermal growth factor receptor (*EGFR*) gene, B) a 750bp fragment of translation factor p64 (*myc*) gene, C) a 900bp fragment of angiotensin II receptor type I (*AGTR1*) gene, D) a 1.2kb fragment of *EGFR* gene, were amplified using MyFi Mix and the results were compared with amplifications using high-fidelity hot-start DNA polymerases from other suppliers. A serial dilution of human genomic DNA (5ng, 1ng, 200pg, 40pg, 8pg, 1.6pg, 0.32pg and 0pg human genomic DNA, lanes 1-8 respectively), was incubated for 3 min at 95°C (or according to the manufacturer's protocol) followed by 35 cycles of 15s at 95°C, 15s at 57°C and 15s at 72°C. Marker is HyperLadder I (M). The results illustrate that MyFi Mix out-performed alternative suppliers of high-fidelity mixes on account of higher efficiency and sensitivity over a wide range of sizes.



Note: MyFi is a trademark of Bioline Reagents Ltd.

Ordering Information

PRODUCT	PACK SIZE	CAT NO.
MyFi DNA Polymerase	250 Units	BIO-21117
	500 Units	BIO-21118
	2500 Units	BIO-21119
MyFi Mix	100 Reactions	BIO-25049
	500 Reactions	BIO-25050

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