PCRBIO **HiFi Polymerase**

- High fidelity
- Enhanced processivity
- Versatile

Features

- 50x higher fidelity than Taq DNA polymerase
- Increased PCR success rates with amplicons up to 10kb
- Advanced buffer chemistry including Mg and dNTPs
- High yields under standard and fast PCR conditions
- Efficient and specific amplification from complex templates including GC rich and AT rich sequences
- Stable at 25˚C and 37˚C for 4 weeks

Applications

- High fidelity PCR
- Fast PCR – 35 cycles of 5kb amplicon in under 1.5hours
- Blunt-end cloning
- Site directed mutagenesis

Further Applications

- Long range PCR - up to 10kb
- Next generation re-sequencing
- “Difficult” PCR - GC/AT rich DNA
- Crude sample PCR
- Colony PCR

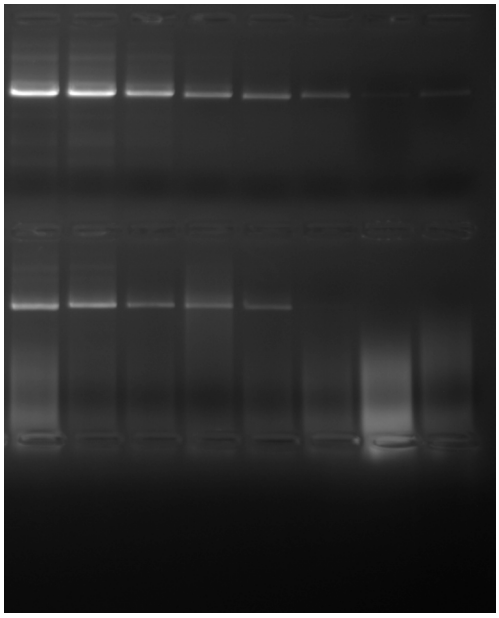

Figure 1.

Shows amplification of a 5kb amplicon from GAPDH derived from purified human genomic DNA. A 2 fold template dilution series was made from a starting concentration of 100 nanograms of DNA. 25 cycles of 30 seconds denaturation, 30 seconds annealing and 75 seconds extension were completed in 1 hour. The first row shows PCRBIO HiFi Polymerase, the second row an equivalent product from Finnzymes and the 3rd row standard Pfu.

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simplifying research

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PCRBIO HiFi Polymerase was derived from Pfu DNA polymerase for its 3'-5' exonuclease (proofreading) activity in PCR. Several proprietary point mutations allow for significantly improved performance when compared with its native form. Together with advanced buffer chemistry this enzyme brings robust performance to the world of high fidelity PCR.

Enhanced DNA binding allows for improved processivity, increasing yield and shortening cycling times. The enhanced efficiency of PCRBIO HiFi Polymerase minimises PCR inhibition, from impure samples such as colony PCR and direct PCR.

PCRBIO HiFi Polymerase uses the latest developments in DNA polymerase technology and buffer chemistry to enhance PCR speed, yield and specificity. The enzyme and buffer system are room temperature stable for 4 weeks and give superior PCR performance on complex templates such has mammalian genomic DNA. PCRBIO HiFi Polymerase performs consistently well on a broad range of templates including both GC and AT rich.

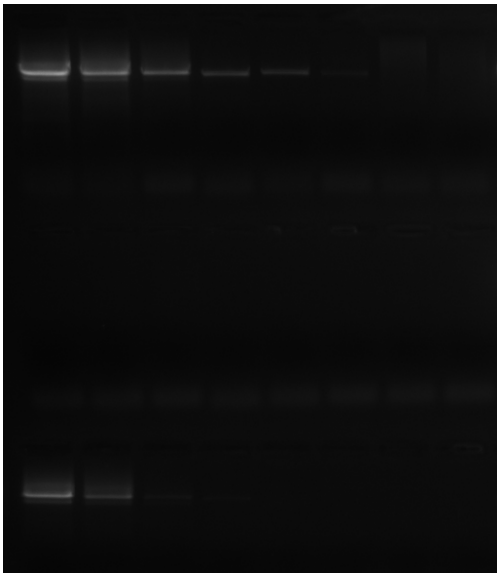

Figure 3.

Shows PCRBIO HiFi Polymerase amplifying a 60% GC 1kb fragment of human GAPDH from genomic DNA. The template is diluted 2 fold over 8 orders of magnitude, starting from 100 nanograms. The first row shows PCRBIO HiFi Polymerase, the second row shows Invitrogens Pfx enzyme and the 3rd row Finnzymes Phusion enzyme.

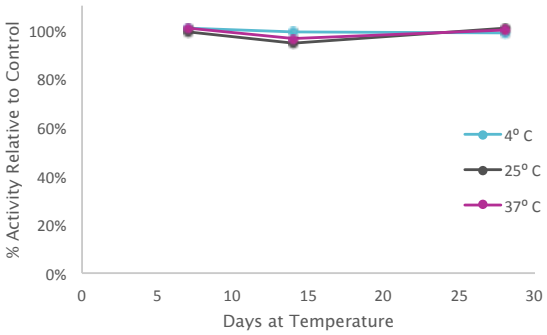

Figure 2.

Shows no change in activity is detected in PCRBIO HiFi Polymerase after 28 days at 4˚C, 25˚C and 37˚C.

Catalogue Number	Product Name	Pack size	Presentation
PB10.41-02	PCRBIO HiFi Polymerase	200 Units	[1 x 0.1ml 2 units/µl] & [3 x 1ml buffer]
PB10.41-10	PCRBIO HiFi Polymerase	1000 Units	[5 x 0.1ml 2 units/µl] & [15 x 1ml buffer]

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