PCRBIO **HS Taq DNA Polymerase**

- Hot start
- Fast and standard cycling
- Ultra sensitive

Features

- Proprietary hot start technology for unrivalled detection of low copy number templates
- Increased PCR success rates with amplicons up to 6kb
- Ultra low background DNA
- Advanced buffer chemistry including Mg and dNTPs
- High yields under standard and fast PCR conditions
- Efficient specific amplification from complex templates including GC rich and AT rich sequences
- Inhibitor tolerant PCR direct from bacterial culture, blood and urine
- Stable at 25˚C and 37˚C for 4 weeks

Applications

- Genotyping
- High throughput PCR
- Low copy template detection
- Standard and fast PCR
- Routine and multiplex PCR
- TA cloning
- PCR direct from blood
- Colony PCR
- PCR of methylated DNA for bi-sulphite sequencing
- “Difficult” PCR - GC/AT rich DNA

Available formats

- 5u/µl polymerase + 5x reaction buffer
- 2x ready mix
- 2x ready mix containing red dye for direct gel loading

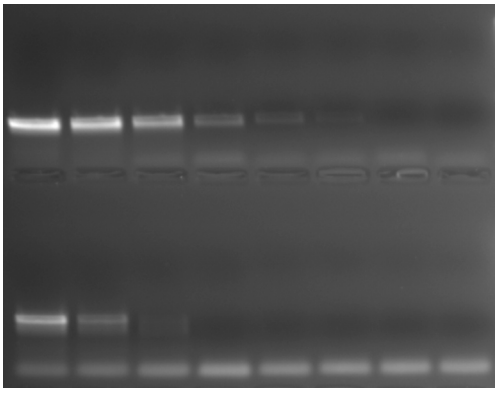

Figure 1.

Shows the amplification of a 1kb fragment of Beta-Actin under standard cycling conditions. Primer extension is prevented during reaction set up and first temperature ramp. Primer dimer amplification diverts DNA polymerase activity from the amplicon of interest and reduces sensitivity in the assay. The top row is PCRBIO HS Taq DNA Polymerase and the 2nd row is an equivalent product from Kapa Biosystems.

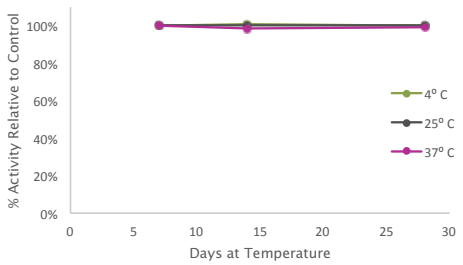

Figure 2.

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

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simplifying research

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PCRBIO HS Taq DNA Polymerase uses advanced hot start technology for superior sensitivity. Whether you need a hot start assay for high throughput, an automated reaction set up or for detection of a low copy number template, PCR Biosystems offers you a robust industry leading enzyme to meet your needs.

Hot Start

"Hot start" is a term used to describe the inactivation of a DNA polymerase until the initial activation step at 95˚C. Inactivation below 65˚C prevents primer dimer formation and non-specific amplification allowing for specific amplification from low copy number target sequences. Our antibody-mediated hot start technology offers improved specificity and sensitivity compared to other methods.

PCRBIO HS Taq DNA Polymerase uses the latest developments in 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 HS Taq DNA Polymerase performs consistently well on a broad range of templates (including both GC and AT rich). PCRBIO HS Taq DNA Polymerase production uses an enhanced 12 step purification strategy which includes physical, chemical and enzymatic removal of host DNA.

For added convenience PCRBIO HS Taq DNA Polymerase is also available as a 2x ready mix. PCRBIO HS Taq Mix Red contains a red dye suitable for direct loading and tracking during agarose gel electrophoresis.

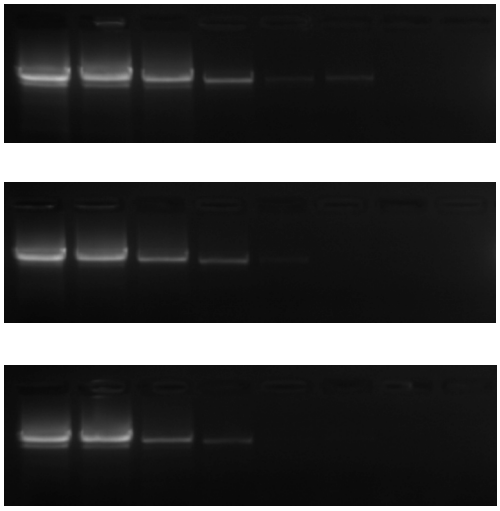

Figure 3.

Shows amplification of a 400bp gene under fast cycling conditions from human genomic DNA. 40 cycles of 5 seconds denaturation at 95˚C and 5 seconds annealing/extension at 60˚C. A 10 fold dilution series of template starting from 100ng was used. The top row is PCRBIO HS Taq DNA Polymerase, the 2nd row is the equivalent product from Kapa Biosystems and the 3rd row is the equivalent product from Invitrogen.

Catalogue Number	Product Name	Pack Size	Presentation
PB10.21-02	PCRBIO HS Taq DNA Polymerase	250 Units	[1 x 0.05ml 5 units/µl] & [2 x 1ml buffer]
PB10.21-10		1000 Units	[4 x 0.05ml 5 units/µl] & [8 x 1ml buffer]
PB10.21-50		5000 Units	[20 x 0.05ml 5 units/µl] & [40 x 1ml buffer]
PB10.22-02	PCRBIO HS Taq Mix	200 Reactions	5 x 1ml
PB10.22-10		1000 Reactions	5 x (5 x 1ml)
PB10.23-02	PCRBIO HS Taq Mix Red	200 Reactions	5 x 1ml
PB10.23-10		1000 Reactions	5 x (5 x 1ml)

PCR Biosystems Ltd. | Aztec House | 397-405 Archway Road | London, N6 4ER
T: +44 (0) 203 930 8101 | E: info@pcrbio.com | Orders: sales@pcrbio.com
www.pcrbio.com