

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

Applications

- Genotyping
- High throughput PCR
- Low copy template detection
- Standard and fast PCR
- Multiplex PCR
- TA cloning
- PCR direct from blood
- Colony PCR
- PCR of methylated DNA for bi-sulphite sequencing
- Routine PCR
- "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

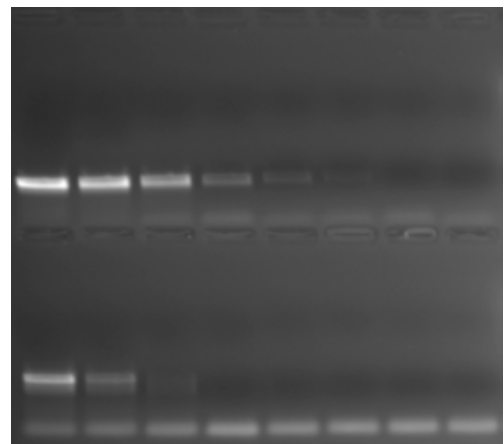


Figure 1.

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 shows results from PCR Biosystems HS Taq DNA Polymerase and the second row shows an equivalent product from Kapa Biosystems.



PCRBIOSYSTEMS
simplifying research

PCR BIO 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 proprietary small molecule hot start technology offers improved specificity and sensitivity compared to other methods.

PCR BIO 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 allow for superior PCR performance on complex templates such as mammalian genomic DNA. PCR BIO HS Taq DNA Polymerase performs consistently well on a broad range of templates (including both GC and AT rich). PCR BIO 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 PCR BIO HS Taq DNA Polymerase is also available as a 2x ready mix. PCR BIO HS Taq Mix Red contains a red dye suitable for direct loading and tracking during agarose gel electrophoresis.

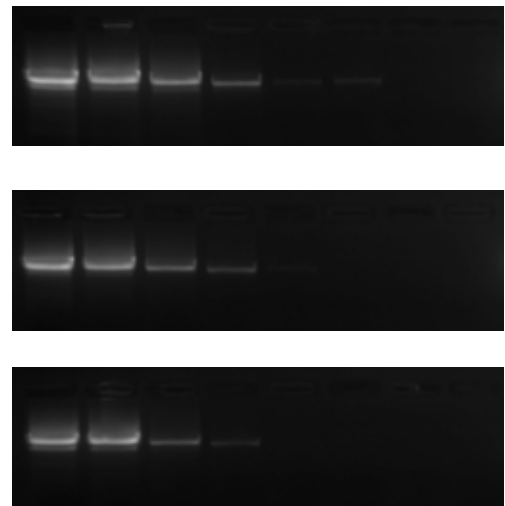


Figure 2.

Shows amplification of a 400bp gene under fast cycling conditions from human genomic DNA. 40 cycles of 5 seconds denaturation at 95 degrees and 5 seconds annealing/extension at 60 degrees. A 10 fold dilution series of template starting from 100ng was used. The top row is PCR BIO HS Taq DNA polymerase, the second 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 | PCR BIO HS Taq DNA Polymerase | 250 Units | [1 x 0.1ml 5 units/μl] & [4 x 1ml buffer] |
| PB10.21-10 | | 1000 Units | [4 x 0.1ml 5 units/μl] & [16 x 1ml buffer] |
| PB10.21-50 | | 5000 Units | [8 x 0.1ml 5 units/μl] & [32 x 1ml buffer] |
| PB10.22-02 | PCR BIO HS Taq Mix | 200 Reactions | 5 x 1ml |
| PB10.22-10 | | 1000 Reactions | 4 x (5 x 1ml) |
| PB10.23-02 | PCR BIO HS Taq Mix Red | 200 Reactions | 5 x 1ml |
| PB10.23-10 | | 1000 Reactions | 4 x (5 x 1ml) |