

# PCRBIO Taq DNA Polymerase



- Robust
- Reliable
- Convenient

PCRBIO Taq DNA Polymerase employs our advanced 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. Taq DNA polymerase is your starting point for every basic PCR application.

## Features

- 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 and specific amplification from complex templates including GC and AT-rich sequences
- Also available as a 2x ready mix, with the option of a red dye for direct gel loading

## Applications

- Routine PCR applications
- TA cloning
- High throughput PCR
- Methylated DNA amplification
- Crude sample PCR
- Standard and fast PCR

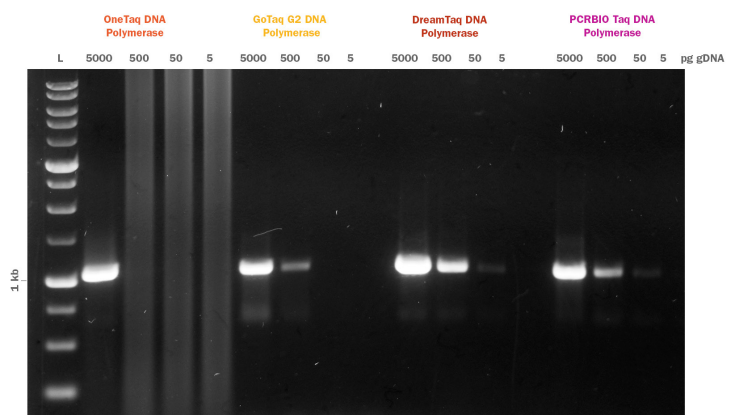


Figure 1. PCRBIO Taq DNA Polymerase outperforms most competitors at amplifying a 1kb fragment

PCR amplification of a 1kb fragment of the GAPDH gene using a 1 in 10 serial dilution of mouse genomic DNA (5000, 500, 50 and 5pg) with PCRBIO Taq DNA Polymerase (purple) and matching Taq polymerases from NEB (orange), Promega (yellow) and Thermo (red). Reactions were set up using master mix formats and following manufacturers' recommendations. Cycling conditions were 95°C 2min, then 40 cycles of 95°C 15sec, 63°C 15sec, 72°C 30sec. 1/5 of the reaction volume was loaded in 1% agarose gel. L: PCRBIO Ladder II. PCRBIO Taq DNA Polymerase outperforms NEB's OneTaq and Promega's GoTaq G2, and is similar to Thermo's DreamTaq.

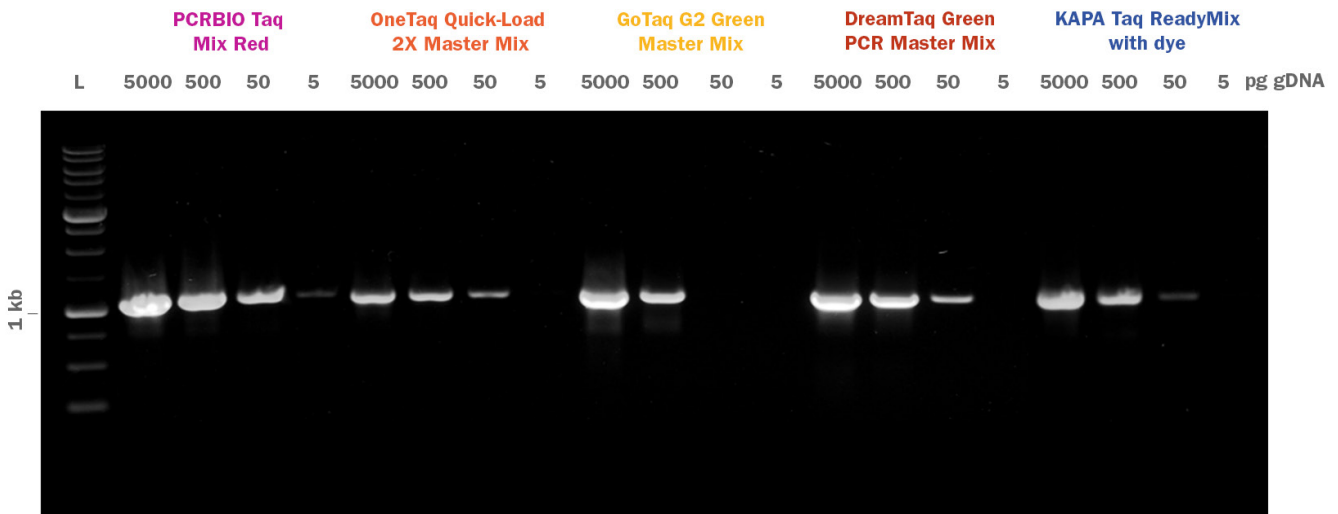


Figure 2. PCRBIOSYSTEMS Taq Mix Red outperforms competitors at amplifying a 1kb fragment

PCR amplification of a 1kb fragment of the GAPDH gene using a 1 in 10 serial dilution of mouse genomic DNA (5000, 500, 50 and 5pg), with PCRBIOSYSTEMS Taq Mix Red and matching Taq mixes from NEB (orange), Promega (yellow), Thermo (red) and Kapa Biosystems (blue). Reactions were set up using manufacturers' recommendations. Cycling conditions were 95°C 2 min, then 40 cycles of 95°C 15 sec, 63°C 15sec, 72°C 30sec except for NEB: 94°C 2min, then 40 cycles of 94°C 15sec, 63°C 15sec, 68°C 30sec. L: PCRBIOSYSTEMS Ladder II.

PCRBIOSYSTEMS Taq DNA Polymerase is a robust enzyme for all your everyday PCR applications, including genotyping, screening and library construction. PCRBIOSYSTEMS Taq DNA Polymerase performs consistently well on a broad range of templates including both GC and AT-rich.

PCRBIOSYSTEMS Taq DNA Polymerase has 5'-3' exonuclease activities, but no 3'-5' exonuclease (proofreading) activity. The enzyme has the same error rate as wild-type Taq DNA polymerase, approximately 1 error per  $2.0 \times 10^5$  nucleotides incorporated. PCR products generated are A-tailed and may be cloned into TA cloning vectors.

PCRBIOSYSTEMS Taq DNA Polymerase provides the research community with an affordable routine application polymerase that performs to the highest possible standard, with a versatility that allows you to amplify with the highest speed, yield, specificity and consistency on the market. The enzyme is produced using an enhanced 12 step purification strategy which includes physical, chemical and enzymatic removal of host DNA.

For added convenience PCRBIOSYSTEMS Taq DNA Polymerase is also available as a 2x ready mix, with the option of a red dye suitable for direct loading and tracking during agarose gel electrophoresis.

Catalogue Number	Product Name	Pack Size	Presentation
PB10.11-05	PCRBIOSYSTEMS Taq DNA Polymerase	500 Units	[1 x 0.1mL 5 units/μL] & [4 x 1mL buffer]
PB10.11-20		2000 Units	[4 x 0.1mL 5 units/μL] & [16 x 1mL buffer]
PB10.11-40		4000 Units	[8 x 0.1mL 5 units/μL] & [32 x 1mL buffer]
PB10.12-02	PCRBIOSYSTEMS Taq Mix	200 Reactions	5 x 1mL
PB10.12-10		1000 Reactions	5 x (5 x 1mL)
PB10.13-02	PCRBIOSYSTEMS Taq Mix Red	200 Reactions	5 x 1mL
PB10.13-10		1000 Reactions	5 x (5 x 1mL)