

Evolved for speed

KAPA2G Fast

KAPA2G Fast DNA Polymerase is a second-generation (2G) enzyme engineered for higher processivity and speed, offering significantly faster extension rates than wild-type Taq polymerase. In addition to speed, KAPA2G Fast provides higher yields and sensitivity than competitor enzymes across a broad range of targets¹.

Gains from KAPA2G Fast:

- **Save valuable time**
Reach extension times as low as 1 sec/kb and reduce PCR reaction times by up to 75%
- **Work with difficult templates**
Broad coverage of both AT- and GC-rich targets
- **Continuously improve your PCR assay development**
HotStart and ReadyMix formulations available



Reduced cycling times up to 75%

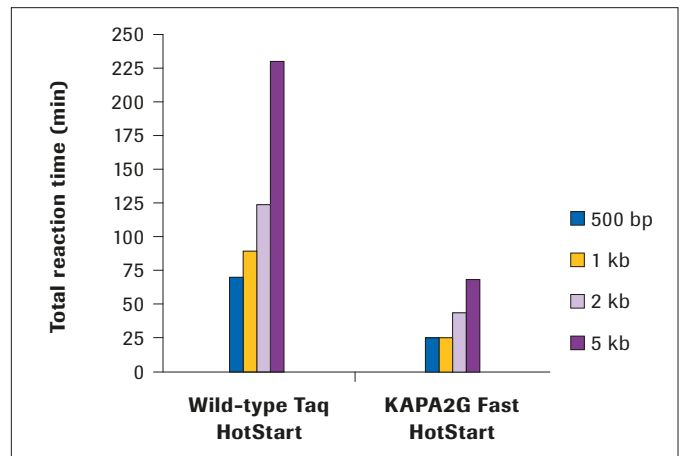


Figure 1: Total PCR times for the generation of different sized amplicons for human genomic DNA (≤ 3.5 kb) and lambda (≤ 5 kb) using wild-type Taq DNA polymerase and KAPA2G Fast DNA Polymerase. The amount of time that can be saved using protocols based on wild-type Taq is limited by the extension rate of the enzyme. KAPA2G Fast DNA Polymerase is based on a second-generation polymerase with an ability to synthesize DNA faster than wild-type Taq or other DNA polymerases. Reaction times are based on a 35-cycle program using the cycling profile recommended by each kit manufacturer¹.

¹Reference: data on file at Roche.
For further processing only.

Increased speed and performance

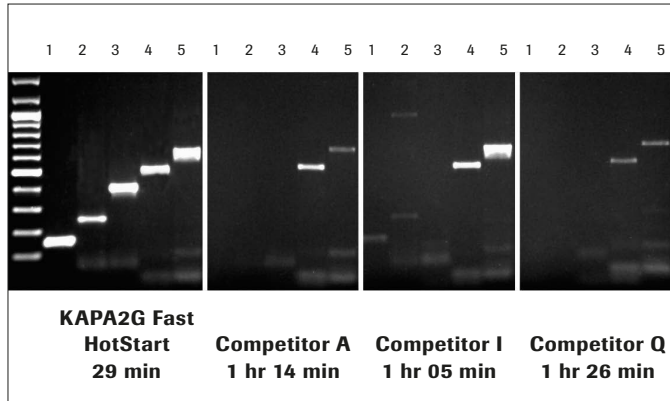


Figure 2: Amplification of 5 human gene fragments using KAPA2G Fast HotStart or competitor hot-start Taq formulations. Reactions (25 µL) contained 5 ng human genomic DNA and 0.5 units (KAPA2G Fast HotStart and Competitor I) or 0.625 units (Competitor A and Q) enzyme. For amplicons with a GC content >65% (lanes 2 and 3), 7.5% DMSO was included in reactions. A 3-step cycling profile (35 cycles) with 15 sec denaturation (95°C) and 15 sec annealing (60°C) per cycles was used for all enzymes. The extension (72°C) was 1 sec/cycle for KAPA2G Fast HotStart and 60 sec/cycle for competitor enzymes. The total reaction time for each enzyme is indicated¹.

Ordering information

| Product | Pack size | Catalog number |
|-------------------------------|-----------|----------------|
| KAPA2G Fast HotStart PCR Kit | 5 kU | 08 041 202 001 |
| KAPA2G Fast HotStart ReadyMix | 12.5 ml | 08 041 172 001 |

¹Reference

Data on file at Roche.

Regulatory disclaimer

For further processing only.

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