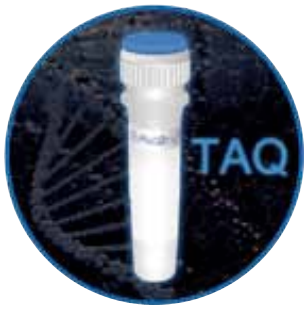


# DNA Polymerase



PCR products generated with FastGene® DNA Polymerase are A-tailed and therefore compatible with TA cloning systems.

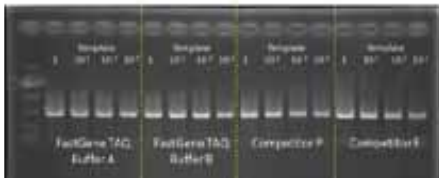


Fig. 1: Reactions (25 µl) were set up according to manufacturer's instructions, amplified fragment is 815 bp. Numbers of cycles were reduced to 25 cycles in order to challenge the PCR enzymes. 10 µl was loaded onto an 1% agarose gel.

The FastGene® DNA Polymerase is based on the single-subunit, wild-type Taq DNA polymerase of the thermophilic bacterium *Thermus aquaticus*. The enzyme is purified using three different chromatography technologies and result in a very high purity and activity. 5 U/µl FastGene® DNA Polymerase contains 150 ng/µl (+/- 10%) protein of >98% purity.

## Applications

- High throughput PCR
- Amplification of low copy DNA templates
- Multiplex PCR
- Specific amplification of complex templates
- RT-PCR

## Two different reaction buffers

The enzyme comes with 2 different reaction buffers. Buffer A is a "high yield" buffer; for most amplicons. Buffer B is a standard KCl-based Taq buffer with which a higher sensitivity has been seen.

*"We are happily using the FastGene® Taq DNA Polymerase for the last 12 months for routine SNP-analysis. We have chosen the FastGene® Taq DNA Polymerase since we needed a robust and reliable polymerase. we are very happy with it and the price-performance ratio is excellent."*

– Dr. J. Wagner, Plantalyt GmbH, Hannover"

# TAQ Ready Mix

*with loading dye*

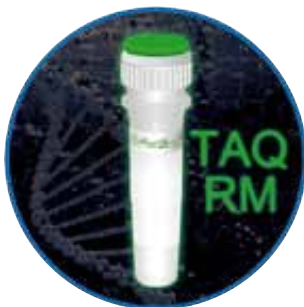


Fig. 2: FastGene® Taq reactions with 1X Loading Dye Reaction Buffer A. Volumes above wells indicate the volume of the PCR reaction loaded on the gel. B. On a 1% agarose gel, the blue dye migration corresponds to a 5 kb DNA fragment, and the yellow dye migrates at 75 bp.

FastGene® Taq ReadyMix (2X) is a ready-to-use cocktail with two inert tracking dyes and containing all components for PCR, except for primers and template. The 2X ReadyMix contains FastGene® Taq DNA Polymerase (1 U per 50 µl reaction), FastGene® Taq Buffer (1X), dNTPs (0.2 mM of each dNTP at 1X), MgCl<sub>2</sub> (1.5 mM at 1X) and stabilizers.

## Applications

- Routine PCR (for products <5 kb of less complex targets)
- PCR of complex targets ( up to 3.5kb)
- DNA labelling
- For agarose gel electrophoresis.
- Amplification of DNA for Sanger sequencing
- Any standard PCR application for which a high-quality thermostable DNA polymerase is required.