Data Sheet (15.02.2016)

mi-*Taq* Mix

2x PCR Master Mix

Source: *Thermus aquaticus, strain YT-1*

Cat.-No.	Size
mi-E8002	100 rxs

For research use only! ***Only for* in vitro *use!***

2x 1.25 ml – for 100 PCRs in a 50 µl volume.
supplied with the mix: 1 ml tube $MgCl_2$ (100 mM)

2x PCR Master Mix Composition

- *Taq* DNA Polymerase in reaction buffer: 0.1 u/µl
- 32 mM $(NH_4)_2SO_4$
- 130 mM TrisHCl, pH 8.8 at 25 °C
- 0.02 % Tween-20
- 5.5 mM $MgCl_2$
- dNTPs (dATP, dCTP, dGTP, dTTP; 0.4 mM each)

Unit definition for *Taq* polymerase
One unit is defined as the amount of the enzyme required to catalyze the incorporation of 10 nmol of dNTP into an acid-insoluble form in 30 minutes at 72 °C.

Storage conditions: - 20 ± 5°C
Repeated (up to 10 times) freezing – thawing does not cause a reduction in PCR performance
Storage at + 4 °C for 1 week does not cause a reduction in PCR performance.

Description
mi-*Taq* Mix is an optimized ready-to-use PCR mixture which contains all components for PCR (DNA Polymerase, PCR buffer, $MgCl_2$ and dNTPs), except DNA template and primers. The 2x PCR Master Mix contains mi-*Taq* DNA polymerase without traces of *E. coli* DNA, but with the increased ability to detect low-copy number genes (Performance is tested on single-copy genes of human and mouse DNA). Therefore it can be recommended not only for all regular applications, but also for templates which contains *E. coli* DNA sequences.
Taq DNA Polymerase shows no detectable exo/endonucleases activities.

(please see also **mi-*Taq* only**; mi-E8001)
The Thermostable DNA Polymerase (94 kDa) is an enzyme that replicates DNA at 72 °C and effectively directs PCR with templates up to 2 kb in length. The enzyme catalyzes the polymerization of nucleotides into duplex DNA in 5'→3' direction in the presence of magnesium ions. It also posesses a 5'→3' polymerization-dependent exo-nuclease replacement activity. The enzyme is highly purified.