



Data Sheet (26.08.2010)

mi-Red Load Taq Mix (high yield)

5x PCR Master Mix for direct gel loading

Ready-to-use mix for PCR

Cat.-No.	Amount	Size
mi-E7002S	100 rx	1 ml
mi-E7002L	500 rx	5 ml

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

5x Red Load Taq Mix (high yield) (red cap)

- Taq Polymerase: 0.05 u/ µl
- dNTPs (dATP, dCTP, dGTP, dTTP) (200 µM)
- reaction buffer with (NH₄)₂SO₄ and MgCl₂ (2 mM)
- Tween-20, Nonidet P-40
- red dye, gel loading buffer, stabilizers

PCR-grade water (white cap)

Description

mi-Red Load Taq Mix (high yield) contains an inherent red dye and allows the direct loading of the PCR reaction product onto the gel. It contains all reagents required for PCR (except template and primer) in a premixed 5x concentrated ready-to-use solution.

The master mix is recommended for use in routine PCR reactions. It is optimized for high efficiency and gives superior amplification results in a broad range of reaction conditions with most primer-template combinations.

Note that the mix is based on a detergent containing buffer system not recommended for plate based PCR and automated pipetting.

The enzyme catalyzes the polymerization of nucleotides into duplex DNA in 5'→3' direction in the presence of magnesium. It also possesses a 5'→3' polymerization-dependent exonuclease replacement activity but lacks a 3'→5' exonuclease activity.

Recommended PCR assay

50 µl PCR assay		
10 µl	5x Red Load Taq Mix h.y.	red cap
0.2-1 µM	each Primer	
2-50 ng	Template DNA	
Fill up to 50 µl	PCR grade H ₂ O	white cap

Recommended cycling conditions

Initial denaturation	94 °C	2 min	1x
Denaturation	94 °C	30 sec	30x
Annealing ¹⁾	45-68 °C	30 sec	
Elongation ²⁾	72 °C	30 sec - 3 min	
Final elongation	72 °C	2 min	2 min

¹⁾ The annealing temperature depends on the melting temperature of the primers used.

²⁾ The elongation time depends on the length of the fragments to be amplified. A time of 1 min/ kbp is recommended.

Storage

Store at -20 °C, avoid frequent thawing and freezing
Storage at 4 °C for up to 3 months possible

For optimal specificity and amplification an individual optimization of the recommended parameters may be necessary for each new primer-template combination.