

## Red Load Taq Master

### Taq master mix for direct gel loading

Ready-to-use mixes for PCR

	PCR-108S	100 reactions	1 ml
	PCR-108L	500 reactions	5 ml

For *in vitro* use only

Quality guaranteed for 12 months

Store at -20°C, avoid frequent thawing and freezing

Storage at 4°C for up to 3 months possible

#### Description

Red Load Taq Master 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 specificity and guarantees minimal by-product formation. The mix is particularly suitable for plate based PCR and automated pipetting where a detergent free buffer system is required.

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 Taq Master Mix	red cap
0.2-1 µM	each Primer	
2-50 ng	Template DNA	
Fill up to 50 µl	PCR grade H <sub>2</sub> O	white cap

#### Recommended cycling conditions

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

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.

#### 5x Red Load Taq Master (red cap)

5x conc. master mix of Taq DNA polymerase, dATP, dCTP, dGTP, dTTP, reaction buffer with KCl and MgCl<sub>2</sub>, red dye, gel loading buffer, stabilizers

#### PCR grade water (white cap)

For optimal specificity and amplification an individual optimization of the recommended parameters may be necessary for each new template DNA and/or primer pair.