



**The ENZYME Company**

### **SuperHoT Master Mix**

**Cat.-No.: 119102      100 rxn**

#### **Description**

2x SuperHot PCR Master Mix is an optimized ready-to-use PCR mixture of *Taq* DNA Polymerase, antibodies to *Taq* DNA polymerase, PCR buffer, MgCl<sub>2</sub> and dNTPs. 2x PCR Master Mix contains all components for PCR, except DNA template and primers. The mixture was shown to be effective for Real Time PCR.

#### **2x SuperHot PCR Master Mix Composition**

- *Taq* DNA Polymerase (recombinant) in reaction buffer: 0.1 units/μl
- Antibodies to *Taq* DNA polymerase, concentration adjusted for the effective inhibition of polymerase activity at 37°C
- 32 mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>
- 130mM TrisHCl, pH 8.8 at 25°C
- 0,02% Tween-20
- 3 mM MgCl<sub>2</sub>
- dNTPs (dATP, dCTP, dGTP, dTTP): 0.4mM of each

**Pack size 2x 1,25ml** – sufficient for 100 HotStart PCR reactions in 50 μl reaction volume **10x 1,25ml** – sufficient for 500 HotStart PCR reactions in 50 μl reaction volume. **Supplied with the enzyme:** 1ml tube MgCl<sub>2</sub> (100mM)

#### **Performance and purity tests**

Tested for the absence of endodeoxyribonucleases and exodeoxyribonucleases.

The 2x SuperHot PCR Master Mix is tested in the amplification of a single-copy gene of mouse genomic DNA.

#### **Endodeoxyribonuclease Assay**

No detectable conversion of covalently closed circular DNA to nicked DNA was observed after incubation of 25μl of 2x SuperHot PCR Master Mix with 1μg of pUC19 DNA in 50μl for 4 hours neither at 37°C nor at 70°C

#### **Protocol for PCR with SuperHot PCR Master Mix**

Due to the inhibition of polymerase activity at room temperature by Anti *Taq* DNA polymerase antibodies all reactions may be setted-up at room temperature, it will not result in increase of unspecific product or primer-dimers formation.

Add in a thin walled PCR tube:ö

50μl reaction volume:			25μl reaction volume:	
Component	Volume	Final concentration	Volume	Final concentration
<b>2X PCR Master Mix</b>	25μl	1X	12.5μl	1X
<b>Forward Primer</b>	variable	0.1-1μM	variable	0.1-1μM
<b>Reverse Primer</b>	variable	0.1-1μM	variable	0.1-1μM
<b>Template DNA</b>	variable	10pg-1μg	variable	10pg-1μg
<b>Sterile Deionized Water</b>	up to 50μl	-	up to 25μl	-

- Gently vortex the sample and briefly centrifuge to collect all drops to the bottom of the tube.
- Overlay the sample with mineral oil or add an appropriate amount of wax if the thermal cycler is not equipped with a heated lid.

- Place the samples in a thermocycler and start a PCR program.

Catalog #	Pack size
119102	100 reactions (2x1,25ml)
119110	500 reactions (10x1,25ml)

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