



The ENZYME Company

DATA SHEET **SuperHot PCR Master Mix**

100 rcs (Reactions)

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, $MgCl_2$ 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/ μ l
- Antibodies to *Taq* DNA polymerase, concentration adjusted for the effective inhibition of polymerase activity at 37°C
- 32 mM $(NH_4)_2SO_4$
- 130mM TrisHCl, pH 8.8 at 25°C
- 0,02% Tween-20
- 3 mM $MgCl_2$
- dNTPs (dATP, dCTP, dGTP, dTTP): 0.4mM of each

Pack size 2x 1,25ml – sufficient for 100 HotStart PCR reactions in 50 μ l reaction volume **10x 1,25ml** – sufficient for 500 HotStart PCR reactions in 50 μ l reaction volume. **Supplied with the enzyme:** 1ml tube $MgCl_2$ (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 25 μ l of 2x SuperHot PCR Master Mix with 1 μ g of pUC19 DNA in 50 μ l 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 set-up at room temperature, it will not result in increase of unspecific product or primer-dimers formation.

Add in a thin walled PCR tube:

50 μ l reaction volume:			25 μ l reaction volume:	
Component	Volume	Final concentration	Volume	Final concentration
2X PCR Master Mix	25 μ l	1X	12.5 μ l	1X
Forward Primer	variable	0.1-1 μ M	variable	0.1-1 μ M
Reverse Primer	variable	0.1-1 μ M	variable	0.1-1 μ M
Template DNA	variable	10pg-1 μ g	variable	10pg-1 μ g
Sterile Deionized Water	up to 50 μ l	-	up to 25 μ l	-

- 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.

Version 1.1 03.04

Bioron GmbH

Contact: Phone: +49-(0)-621- 5720 915 Fax:+49-(0)-621-5720 916
E-Mail: info@bioron.net NET: www.bioron.net