Steinbrenner Laborsysteme GmbH

primaAMP

2x PCR Master Mix with Loading Dye

Article	Content
SL-9612-smp	1 ml, 100 rxn × 20 µl
SL-9612-5ML	5 x 1 ml, 500 rxn × 20 µl
SL-9612-10ML	10 x 1 ml, 1000 rxn × 20 µl
SL-9612-20ML	20 x 1 ml, 2000 rxn × 20 µl

Long-Term Storage
at -20°C in the dark

Short-Term Storage
at 4°C in the dark

DESCRIPTION

Our **primaAMP 2x PCR Master Mix** includes a recombinant, thermostable Taq from Thermus aquaticus. It possesses a 5' to 3' polymerase activity as well as a 5'-flap endonuclease activity.

The **primaAMP** Taq DNA polymerase can be used to amplify DNA fragments up to a length of 5 kb. Moreover, it generates A (adenine) overhangs at the 3' end, which can be used for TA-cloning.

The sophisticated buffer system contains potassium chloride as well as ammonium sulfate and allows the amplification of difficult templates (e.g GC-rich).

A **red-colored loading dye is included** in the Master Mix which allows for direct loading onto agarose gels after PCR.

DID YOU KNOW?

- primaAMP is also available as a stand-alone polymerase.
- For a Master Mix with HotStart polymerase, please order SL-9712.

VERSION **1.0 – 06 / 2022**

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Recommended Reaction Mixture per Well

BEFORE YOU START

- After thawing, please **invert the Master Mix tube 6-8 times**.
- **Do not vortex** the Master Mix to avoid damaging the enzyme.

Component	20 µl Reaction	10 µl Reaction	Final Concentration
2x primaAMP PCR Master Mix	10 µl	5 µl	1x
Forward Primer	variable (e.g. 2 µl)	variable (e.g. 1 µl)	100 - 400 nM
Reverse Primer	variable (e.g. 2 µl)	variable (e.g. 1 µl)	100 -400 nM
Template DNA	variable	variable	0.01 - 10 ng per reaction
Sterile Water	adjust to 20 µl	adjust to 10 µl	–

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Suggested Cycling Conditions

Step	Time	Temperature
Initial Denaturation	3 minutes	92°C - 95°C
25 - 35 cycles		
Denaturation	5 - 10 seconds	92°C - 95°C
Annealing	5 - 10 seconds	55°C - 68°C **depends on primer**
Extension	5 - 30 seconds per 1 kb amplicon length	72°C

NOTE

- The optimal annealing temperature is usually 2°C - 5°C below the primer melting temperature.
- Recommended elongation time is 5 - 30 seconds per 1 kb of amplicon length. For more complicated templates, we suggest 45 seconds for elongation.
- For maximum yield and specificity, we recommend to optimize annealing temperatures, annealing time, extension time, and the number of cycles should be optimized and the number of cycles for each template and primer pair.

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Further Information

For more information, please visit our website: **www.steinbrenner.de**

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Further Products

Products that may also be interesting to you

primaDIRECT PCR

- Direct-PCR without DNA extraction
- From sample to PCR in 15 minutes
- For cell culture, tissue, plants, mouse tails/ear, meat

primaPROOF HIGH-FIDELITY

- High-fidelity / proofreading PCR
- For NGS and cloning