

2×AMPQX® Plus PCR Master Mix (With Dye)

Cat. no. LM201002-2

Address: SHT technology GmbH, Niederhöchstädter Str. 64, 61476 Kronberg im Taunus, Germany

Tel.: +49 176 34989414

Website: <https://sht-medino.de/>

2×AMPQX® Plus PCR Master Mix (With Dye)

Cat. no. LM201002-2

Product Information

Product	2× AMPQX® Plus PCR Master Mix (With Dye)
Catalog No.	LM201002-2
Size	1 mL/ 5×1 mL
Storage conditions	This product should be stored at -25 ~ -15°C for 1 years..

2.Product description

2× AMPQX® Plus PCR Master Mix (With Dye) is a ready-to-use type 2× premixed solution containing AMPQX®Plus High-Fidelity DNA Polymerase, dNTPs, and an optimized buffer system. Two monoclonal antibodies, which could inhibit polymerase activity and 3'→5' exonuclease activity, were added to make Hot Start PCR with high specificity. The addition of elongation factor to the premix makes the enzyme able to amplify long fragments, and the length of the amplified target fragment can be up to 13 kb. The enzyme has 5'→3' DNA polymerase activity and 3'→5' exonuclease activity, with the fidelity of Taq DNA polymerase 83 Times, 9 times that than common Pfu DNA polymerase. Suitable for amplification of complex templates, the amplification product is flat end.

2× AMPQX® Plus PCR Master Mix (With Dye) has the advantages of fast and simple, high sensitivity, strong specificity and good stability. The reaction system only needs to add primers and template, and can be amplified through the two-step method, which simplifies the experimental steps and saves time. This product contains an electrophoretic indicator dye, a PCR Products can be directly subjected to electrophoresis. In addition, the product also contains a specific protective agent, so that the premixed liquid can still maintain a stable activity after repeated freezing and thawing.

3.Instructions

3.1.Recommended PCR reaction systems.

Components	Volume (μL)	Final concentration
RNase-free ddH2O	Up to 50	-
Template	x	-

Forward Primer 10 µmol/L	2	-
Reverse Primer 10 µmol/L	2	-
2 × AMPQX® Gold PCR Master Mix	25	1×

[Note]:

- At the final concentration, the 1 premix solution contained 1U/50 µl of polymerase, 2mM Mg²⁺, and 200 µM of dNTPs.
- The final concentration of primer in the reaction system ranged from 0.2 – 1 µM, recommended 0.4 µM
- Recommended usage for different templates (25 µL reaction system):

Template	The amplified fragment was 1 kb - 10 kb
Genome DNA	50 ng – 200 ng
Plasmid or viral DNA	10 pg – 20 ng
cDNA	1-2.5 µL (not more than 1 / 10 of total volume of PCR reaction)

3.2.Reaction program

Cycle step	Temp.	Time	Cycles
Initial denaturation	98°C	3min	1
Denaturation	98°C	10 sec	30-35
Annealing	60°C	20 sec	
Extension	72°C	30 sec/kb	
Final extension	72°C	5 min	1

[Note]:

- Pre-denaturation temperature and time: recommended temperature: 98°C, time: 3 min, high GC content template 5-10 min
- Annealing temperature and time: recommended temperature: 60°C, or according to the need, set up a temperature gradient to explore the optimal temperature of primer annealing. The recommended annealing time is set to 20 sec, which can be adjusted within 10 – 30 sec. Too long an annealing time may cause the dispersion of the amplification product on the glue
- Extended temperature and time: Recommended temperature: 72°C. Time: 30 sec/kb, and the complex template can be extended to 60 sec/kb according to the actual situation.

4.Notes

- For your safety and health, please wear a lab coat and disposable gloves during operation.
- This product is for research use only!