

2×AMPQX® HotStart PCR Master Mix -with Dye

Cat. no. LM201007-4

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Product Information

Product	2 × AMPQX® HotStart PCR Master Mix -with Dye
Catalog No.	LM201007-4
Size	100 µL/1 mL/5x 1 mL
Storage conditions	This product should be stored at -20 °C for 2 years.

2.Product description

2×AMPQX®HotStart PCR Master Mix(With Dye) is a ready-to-use PCR premixed solution containing AMPQX® HotStart Taq DNA Polymerase, dNTP and optimized buffer system, amplified only by adding primers and templates, which greatly simplifies the experimental operation steps and improves the high-throughput operation and the reproducibility of the experimental results. AMPQX® HotStart Taq DNA Polymerase is a hybrid product of AMPQX® Taq, antibody and AMPQX® Taq DNA Polymerase. AMPQX® Taq, the antibody has high affinity with AMPQX® Taq DNA Polymerase, 50°C for 30 min, can still close the activity of AMPQX® Taq DNA Polymerase. AMPQX® HotStart Taq DNA Polymerase was completely inactivated by heating 30 sec at a predenaturing temperature, releasing DNA polymerase activity. Use of this heat-initiated taq enzyme can effectively inhibit amplification due to non-specific annealing of the primers.

The electrophoresis buffer and dye have been added to the premix solution, allowing the PCR product to direct electrophoresis, and the presence of the dye does not interfere with the amplification efficiency. The PCR product has a 3'-dA protruding end and can be easily cloned into the T vector.

3.Instructions

3.1.Recommended PCR reaction systems.

Components	Volume (µL)	Final concentration
ddH ₂ O	Up to 50	-
2× AMPQX® HotStart PCR Master Mix (With Dye)	25	1x
Template	x	-
Forward Primer 10 µmol/L	2	0.4 µM
Reverse Primer 10 µmol/L	2	0.4 µM

[Note]:For the different optimal reaction concentration of different templates, the following table is the recommended template usage of 50 µL reaction system, This is for your reference only.

Template types	Template usage
Genome DNA	50 ng - 200 ng
Plasmid DNA	100 pg - 20 ng
cDNA	1-5 µL (no more than the reaction system 1/10)

3.2.Reaction program

Cycle step	Temp.	Time	Cycles
Initial denaturation	95°C	5 min	1
Denaturation	95°C	30 sec	35
Annealing	50 - 60°C	30 sec	
Extension	72°C	30 sec/kb	
Final extension	72°C	10 min	1

[Note]:

- Annealing temperature and time:50-60°Cis recommended for the temperature.Too low annealing temperature causes non-specific amplification.Primers were designed with reference to fluorescence quantitative primer standards.The recommended annealing time is set to 30 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.Can also Set up a temperature gradient to explore the optimal temperature and time of primer annealing as needed.
- Extended temperature and time:72°Cof temperature is recommended.30 sec/kb is recommended.
- Amplification product:Please place the PCR amplification product at-20°Cfor storage to prevent DNA degradation.

4.Notes

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