

AmpFi 2x Probe qPCR MasterMix

DM-AmpPro500

Store at -20°C.

Description

AmpFi 2x Probe qPCR MasterMix is intended for TaqMan probe-based real-time qPCR analysis of DNA samples. The MasterMix components (dNTPs, DNA polymerase, MgCl₂, and other proprietary buffer components) have been created to perform well in under one hour. The MasterMix is fit for SNP genotyping assays, gene expression analysis, microarray validation, and high throughput screening applications. ROX reference dye is provided individually, making it universally compatible with most qPCR instruments.

Product Component	Quantity
AmpFi 2x Probe qPCR MasterMix	500 rxn (4 x 1.25 ml)
ROX Reference Dye	50 µl

Protocol

The suggested quantity of ROX Reference Dye to incorporate into the MasterMix can differ based on the specific type of qPCR machine being used.

- No ROX equipment: Not needed.
- Low ROX equipment: 1 µl ROX/1.25 ml MasterMix.
- High ROX equipment: 11 µl ROX/1.25 ml MasterMix.

1. Thoroughly thaw and mix individual components before use and assemble reaction on ice.

Component	Volume
AmpFi 2x Probe qPCR MasterMix	10 µl
Forward Primer	Variable (100 – 500 nM)
Reverse Primer	Variable (100 – 500 nM)
TaqMan Probe	Variable (100 – 300 nM)
DNA Template	Variable (≤10 ng/rxn)
Nuclease-Free H ₂ O	up to 20 µl

2. Gently mix the reaction and briefly centrifuge.

3. Thermocycling conditions for standard qPCR:

Step	Temperature	Duration		Cycle(s)
		Standard	Fast	
Enzyme Activation	95°C	3 min	20 sec	1
Denaturation	95°C	15 sec	1 sec	40
Annealing/Extension	60°C	1 min	10 sec	

Notes

- The components of the MasterMix are sensitive to light; it is important to minimize their exposure to light.
- Initiate the qPCR process promptly after the reaction mixture is prepared, and consistently keep the mixture chilled on ice before loading it onto the instrument.
- Select either the Standard or Fast qPCR program, depending on the specific requirements of your application.