BlasTaq™ 2X qPCR MasterMix

Cat. No. G891, G892

Store at -20°C.

Product Description

BlasTaq™ 2X qPCR MasterMix provides a **dye-based** real-time qPCR analysis of DNA samples. This ready-to-use qPCR MasterMix contains **abm**'s strategically-engineered, next generation Taq Polymerase, BlasTaq™, leading to **rapid extension rates and robust performance**. With specialized reaction conditions, this polymerase provides increased processivity, yields, and sensitivity, while shortening reaction times by up to 70%, compared to wild-type Taq DNA polymerase. BlasTaq™ has 5'-3' polymerase and 5'-3' exonuclease activities, lacks 3'-5' exonuclease activity, and produces 3'-dA-tailed amplicons. qPCR products made with BlasTaq™ can be used with TA cloning vectors. MasterMix contains dye comparable to SYBR Green™ and EvaGreen™. ROX Reference Dye is provided separate from the MasterMix, making this kit universally compatible with most qPCR instruments.

Cat. No.	Product Component	Quantity	Part No.
G891	BlasTaq™ 2X qPCR MasterMix	500 rxn (4 x 1.25 ml)	G891-1
	ROX Reference Dye	50 µl	P102
G892	BlasTaq™ 2X qPCR MasterMix	2,500 rxn (25 ml)	G892-1
	ROX Reference Dye	240 µl	P103

Protocol

MasterMix contains dye comparable to SYBR Green™ and EvaGreen™. ROX Reference Dye is provided separate from the MasterMix, making this kit universally compatible with most qPCR instruments.

*See **Rox Machine Compatibility** on our product page under the Documents tab on our website.*

The recommended amount of ROX Reference Dye to be added into the MasterMix may vary depending on the qPCR machine type:

- No ROX equipment: Not needed.
- Low ROX equipment: 1 µl/1.25 ml or 22.5 µl/25 ml MasterMix.
- High ROX equipment: 11.5 µl/1.25 ml or 225 µl/25 ml MasterMix

1. Mix individual components before use and assemble reaction on ice.

Product Component	Volume
BlasTaq™ 2X qPCR MM [1]	10 µl
Forward Primer (10 µM)	0.5 µl
Reverse Primer (10 µM)	0.5 µl
Template DNA	Variable (100 ng genomic DNA)
Nuclease-free H_2O	Up to 20 µl

[1] The reaction buffer contains 1.5 mM Mg^{2+}

2. Gently mix the reaction components, and briefly centrifuge. Use thermocycling conditions below.

Step	Temperature	Duration		Cycle(s)
		Standard	Fast	
Enzyme Activation	95°C	3 min	3 min	1
Denaturation	95°C	15 sec	1 sec	40
Annealing/Extension	60°C	1 min	10 sec	
Melting Curve	Refer to specific guidelines for instrument used			

General Notes

- Specialized buffer for higher yields, sensitivity, and specificity compared to wild-type Taq polymerase.
- Ideally start the qPCR as soon as the reaction mixture is prepared. If not possible, keep the reaction mixture on ice until starting the qPCR.
- Use the standard thermocycling condition with miRNA cDNA templates or any other appropriate applications.

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