



BlasTaq™ 2X qPCR MasterMix

Cat. No. G891, G892

Store at -20°C.

Product Description

BlasTaq™ 2X qPCR MasterMix provides a convenient, reliable and robust setup for performing quantitative real-time analysis of DNA samples. This ready-to-use qPCR MasterMix contains **abm's** strategically-engineered, next generation Taq Polymerase, BlasTaq™ DNA Polymerase, providing for **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.

| 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 (25.0 ml) | G892-1 |
| | ROX Reference Dye | 240 µl | P103 |

Protocol

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 µl/1.25 ml or 225 µl/25 ml MasterMix.

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

| 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 ₂ O | up to 20 µl |

¹The reaction buffer contains 1.5 mM Mg²⁺.

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 | 20 sec | 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 fast thermocycling condition with miRNA cDNA templates or any other appropriate applications.