

Kodacq 2X PCR MasterMix

Catalog
TBS4057

Unit
800 Reactions

Description

Kodacq 2X PCR MasterMix is a ready-to-use mixture containing all the necessary reagents for amplification of DNA in a uniquely-formulated buffer with gel loading dye. This master mix contains Kodacq DNA Polymerase which is a DNA polymerase with strategically engineered mutations resulting in a robust and a high fidelity polymerase. Kodacq DNA polymerase has exceptional 3' to 5' exonuclease activity that endows it with superior accuracy over competitor polymerases. This enzyme intrinsically has high processivity and is engineered to have an improved binding affinity for DNA resulting in a highly successful PCR. Furthermore, the uniquely-formulated buffer tolerates high AT and GC content, as well as many PCR inhibitors commonly found in a typical DNA sample.

3. After PCR, maintain the reaction at 4°C or store at -20°C until use.
4. Analyze the amplification products by agarose gel electrophoresis.
5. Visualize by ethidium bromide or SafeView™ (Cat No. TBS6110) staining.

General Notes

- Suitable for long range PCR up to 18 kb from less difficult targets or up to 15 kb from genomic DNA.
- Start with high quality, purified DNA templates to achieve even greater PCR success.

Component

| Product Component | Quantity |
|--------------------------------------|-------------------|
| Kodacq 2X PCR MasterMix ¹ | 800 rxn (10.0 ml) |

¹ Buffer contains 1.5 mM Mg²⁺.

For research use only

Store at -20°C.

Protocol

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

| Component | Volume |
|--------------------------------|-------------------------------|
| Kodacq 2X PCR MM | 12.5 µl |
| Forward Primer (10 µM) | 1 µl |
| Reverse Primer (10 µM) | 1 µl |
| Template DNA | Variable (100 ng genomic DNA) |
| Nuclease-free H ₂ O | Up to 25 µl |

2. Gently mix the reaction components and briefly centrifuge, the transfer tube to a thermalcycler. Use thermocycling conditions for standard PCR (1 kb template):

| Step | Temperature | Time |
|----------------------|-------------|----------|
| Initial Denaturation | 94°C | 5 min |
| 25 – 35 Cycles | 94°C | 30 sec |
| | 50-70°C | 30 sec |
| | 72°C | 1 min/kb |
| Final Extension | 72°C | 5 min |