KIAGENE FANAVAR

# 2X Hot Start Taq Master Mix

## Cat. No:
## FPLF015.1000
## Contents:

| Components | |
|---|---|
| 2X Hot Start Taq Master Mix | 1ml |

## Kit storage:

⚠ This kit should be stored at -20 °C.
If properly stored, all kit components are stable until the expiration date printed on the label.

## Additional Equipment and Reagent required

- Template: genomic DNA, plasmid, phage DNA, cDNA
- Forward and reverse primers
- Agarose
- 1 kb DNA Ladder
- 0.2 or 0.5-mL nuclease-free microcentrifuge tubes
- Water, nuclease-free

## Application

Hot Start Taq 2X Master Mix is an optimized ready-to-use solution containing Hot Start Taq DNA Polymerase, dNTPs, MgCl2, KCl and stabilizers. It is ideally suited to routine PCR applications from templates including pure DNA solutions, bacterial colonies, and cDNA products.

Hot Start Polymerase contains the high-performance DNA Polymerase bound to a proprietary antibody that blocks polymerase activity. The polymerase activity is restored during the initial denaturation step when the amplification reactions are heated at 94-95 degrees C for two minutes.

The inhibitor binds reversibly to the enzyme, inhibiting polymerase activity at temperatures below 45°C, but releases the enzyme during normal cycling conditions allowing reactions to be set up at room temperature

## Handling Requirements and Safety Information

⚠ *use RNase-free and DNase-free materials*

⚠ *Do not use any modified Protocols.*

⚠ *Do not pool reagents from different lot numbers.*

⚠ *Immediately after usage, close all bottles in order to avoid leakage, varying buffer concentrations or buffer conditions.*

⚠ *After first opening store all bottles in an upright position.*

⚠ Do not contaminate the reagents with bacteria, virus, or nucleases. Use disposable pipets and nuclease free pipet tips only, to remove aliquots from reagent bottles.

## Protocol

**1.** Prepare reaction by adding the following components in the order listed in the following table.

| Components | 20 µl rxn | 50 µl rxn | Final conc. |
|---|---|---|---|
| 2X Hot Start Taq Master Mix | 10 µl | 25 µl | 1x |
| Forward Primer | x µl | | 0.5 µM |
| Reverse Primer | x µl | | 0.5 µM |
| Template DNA | x µl of 0.01–10 ng plasmid<br>x µl 5–100 ng genomic DNA | | |
| nuclease free Water | Add to 20 µl | add to 50 µL | - |

**2.** Run a thermal cycler program set to the following parameters according to the protocol to be performed.

| Cycle | Time | Temp°C |
|---|---|---|
| 1 | 5 min | 95 |
| 25-35 Cycles | 30 sec | 94 |
| | 30 sec | 57 |
| | 30-60 s/kb | 72 |
| 1 | 5 min | 72 |

**3.** Check 7 µl of PCR products by 0.5 % agarose gel electrophoresis.