**Print Page 2 Only for Customer**

**Concentration:** FlashTaq HotStart MasterMix: 2X

**Storage and Handling:**

Upon arrival store at -20°C for provided expiration date, Room Temperature for 60 Days, 4°C for up to 120 days. Minimize Freeze thaw of master mix to avoid loss of performance.

**Ordering Information:**

|  |  |  |
| --- | --- | --- |
| **Item Number** | **Number of Tubes and Volume** | **Total number of reactions which can be obtained when using the following reaction sizes** |
| **50μL Reaction** | **20μL Reaction** | **10μL Reaction** |
| FT-MM -250 | FlashTaq HotStart 2X MasterMix: 5 x 1.25mL | 250 | 625 | 1250 |
| FT-MM -500 | FlashTaq HotStart 2X MasterMix: 10 x 1.25mL | 500 | 1250 | 2500 |
| FT-MM -1000 | FlashTaq HotStart 2X MasterMix: 20 x 1.25mL | 1000 | 2500 | 5000 |
| FT-MM -2500 | FlashTaq HotStart 2X MasterMix: 50 x 1.25mL | 2500 | 6250 | 12500 |

**Product Description:**

Empirical’s FlashTaq HotStart 2X MasterMix contains FlashTaq HotStart DNA Polymerase; a chemically modified HotStart Taq DNA polymerase. The FlashTaq HotStart 2X MasterMix remains inactive at room temperature until after 2 minutes activation at 95°C. The 2X MasterMix contains dCTP, dGTP, dATP, dTTP, MgCl2, and FlashTaq HotStart. Taq DNA Polymerase gene is isolated from *Thermus aquaticus* YT1 and expressed in *E. coli*. Just add template and primers with the MasterMix and the reaction is ready to go*.*

**Protocol:** Minimize Freeze thaw of master mix to avoid loss of performance. The following reaction set up and general cycling conditions are recommended but can vary depending on the template and primers being used.

**Reaction set-up for a 50uL Reaction:**

|  |  |  |
| --- | --- | --- |
| Component | Volume | Final Concentration |
| FlashTaq HotStart 2X MasterMix | 25 µl | 1X |
| Upstream Primer, 10µM | 0.5-5.0 µl | 0.1-1.0µM |
| Downstream Primer, 10µM | 0.5-5.0 µl | 0.1-1.0µM |
| DNA Template | X µl | > 1ng |
| Nuclease Free Water to volume | 50 µl | N.A. |

**Thermal cycling conditions:** The following general cycling conditions are recommended but can vary depending on the template and primers being used.

|  |  |  |  |
| --- | --- | --- | --- |
| Cycling Step | Temperature | Holding Time | Cycles |
| Initial Denaturation and FlashTaq HotStart Activation | 95°C | 2min | 1 |
| Denaturation | 94-96°C | 15 - 30sec | 20-30 |
| Annealing# | 55-65°C | 15 - 60sec |
| Extension | 70-72°C | 1min/kb |
| Final Extension | 70-72°C | 0-10min | 1 |
| #Annealing will depend on primer length and composition. Generally, begin 5°C below primer Tm. |