**Print Page 2 Only for Customer**

**Concentration:** Taq 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** |
| TP-MM-250 | Taq 2X MasterMix: 5 x 1.25mL | 250 | 625 | 1250 |
| TP-MM-500 | Taq 2X MasterMix: 10 x 1.25mL | 500 | 1250 | 2500 |
| TP-MM-1000 | Taq 2X MasterMix: 20 x 1.25mL | 1000 | 2500 | 5000 |
| TP-MM-2500 | Taq 2X MasterMix: 50 x 1.25mL | 2500 | 6250 | 12500 |

**Product Description:**

Empirical’s Taq 2X MasterMix is supplied at a 2X reaction buffer with dCTP, dGTP, dATP, dTTP, MgCl2 and Taq DNA polymerase. Taq DNA Polymerase gene was isolated from *Thermus aquaticus* YT1 and expressed in *E. coli*. Empirical’s Taq 2X MasterMix is easy to use, versatile, and provides excellent amplification for many PCR based applications. 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 |
| Taq 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 | 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. | | | |