**Print Page 2 Only for Customer**

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

**Product Description:**

Empirical’s Taq 2X MeanGreen MasterMix is supplied at a 2X reaction buffer with Loading Dye, 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 MeanGreen MasterMix is easy to use, versatile, and provides excellent amplification for many PCR based applications. Just add template and primers with the MeanGreen MasterMix and the reaction is ready to go*.*

Taq 2X MeanGreen MasterMix contains blue and yellow loading dyes and a density agent that allow reactions to be loaded directly onto agarose gels and make monitoring progress during electrophoresis easy. These dyes do not obscure visualization of DNA bands on the gel as the dye fronts run outside the size of most PCR products.

**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 MeanGreen 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. |