Product Information Sheet

Product Name: Taq 2X MeanGreen Master Mix*
Concentration: 2X

Ordering Information:

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Total Volume Received</th>
<th>Quantity Received</th>
<th>Total number of reactions which can be obtained when using the following reaction sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>50µL Reactions</td>
</tr>
<tr>
<td>SS-TP-MMWD-10</td>
<td>250 µL</td>
<td>1 x 250µL</td>
<td>10</td>
</tr>
<tr>
<td>TP-MMWD-100</td>
<td>2.5mL</td>
<td>2 x 1.25mL</td>
<td>100</td>
</tr>
<tr>
<td>TP-MMWD-250</td>
<td>6.25mL</td>
<td>5 x 1.25mL</td>
<td>250</td>
</tr>
<tr>
<td>TP-MMWD-500</td>
<td>12.5mL</td>
<td>10 x 1.25mL</td>
<td>500</td>
</tr>
<tr>
<td>TP-MMWD-1000</td>
<td>25mL</td>
<td>20 x 1.25mL</td>
<td>1000</td>
</tr>
<tr>
<td>TP-MMWD-2500</td>
<td>62.5mL</td>
<td>50 x 1.25mL</td>
<td>2500</td>
</tr>
</tbody>
</table>

Storage and Handling:
Store at -20°C upon arrival.

Product Description:
Empirical’s Taq 2X Master Mix is supplied at a 2X reaction buffer with 400µM dCTP, 400µM dGTP, 400µM dATP, 400µM dTTP, 3mM MgCl₂ and Taq DNA polymerase. Taq DNA Polymerase gene was isolated from *Thermus aquaticus* YT1 and expressed in *E. coli*. Empirical’s Taq 2X Master Mix is easy to use, versatile, and provides excellent amplification for many PCR based applications. Just add template and primers with the Master Mix and the reaction is ready to go.

Taq 2X MeanGreen Master Mix 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: The following reaction set up and general cycling conditions are recommended but can vary depending on the template and primers being used. The following set up is for a 50 µl reaction size

Reaction set-up for a 50µL Reaction:

<table>
<thead>
<tr>
<th>Component</th>
<th>Volume</th>
<th>Final Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taq 2X MeanGreen Master Mix</td>
<td>25 µl</td>
<td>1X</td>
</tr>
<tr>
<td>Upstream Primer, 10µM</td>
<td>0.5-5.0 µl</td>
<td>0.1-1.0µM</td>
</tr>
<tr>
<td>Downstream Primer, 10µM</td>
<td>0.5-5.0 µl</td>
<td>0.1-1.0µM</td>
</tr>
<tr>
<td>DNA Template</td>
<td>X µl</td>
<td>&gt; 1ng</td>
</tr>
<tr>
<td>Nuclease Free Water to volume</td>
<td>50 µl</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

* This product is for “Research Use Only. Not for use in diagnostic procedures”.
For MSDS and Certificate of Analysis please visit www.empiricalbioscience.com

PIS-012 Version 002
Thermal cycling conditions: The following general cycling conditions are recommended but can vary depending on the template and primers being used.

<table>
<thead>
<tr>
<th>Cycling Step</th>
<th>Temperature</th>
<th>Holding Time</th>
<th>Cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Denaturation</td>
<td>94°C</td>
<td>30 sec - 2min</td>
<td>1</td>
</tr>
<tr>
<td>Denaturation</td>
<td>94-96°C</td>
<td>15 sec - 30 sec</td>
<td>20-30</td>
</tr>
<tr>
<td>Annealing°</td>
<td>55-65°C</td>
<td>15 sec - 60sec</td>
<td>20-30</td>
</tr>
<tr>
<td>Extension</td>
<td>70-72°C</td>
<td>1min/kb</td>
<td>1</td>
</tr>
<tr>
<td>Final Extension</td>
<td>70-72°C</td>
<td>0-10min</td>
<td>1</td>
</tr>
</tbody>
</table>

*Annealing will depend on primer length and composition. Generally, begin 5°C below primer Tm.*