Product Information Sheet

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

Item Number	Total Volume Received	Quantity Received	Total number of reactions which can be obtained when using the following reaction sizes		
			50µL Reactions	20µL Reactions	10µL Reactions
SS-TP-MMWD-10	250 uL	1 x 250uL	10	25	50
TP-MMWD-100	2.5mL	2 x 1.25mL	100	250	500
TP-MMWD-250	6.25mL	5 x 1.25mL	250	625	1250
TP-MMWD-500	12.5mL	10 x 1.25mL	500	1250	2500
TP-MMWD-1000	25mL	20 x 1.25mL	1000	2500	5000
TP-MMWD-2500	62.5mL	50 x 1.25mL	2500	6250	12500

Storage and Handling:
Store at -20^{0}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 $MgCl_2$ 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 50uL Reaction:

Component	Volume	Final Concentration
Taq 2X MeanGreen Master Mix	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.

*** This product is for "Research Use Only. Not for use in diagnostic procedures".**
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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	94^{0}C	30 sec - 2min	1
Denaturation	94-96^{0}C	15 sec - 30 sec	20-30
Annealing°	55-65^{0}C	15 sec - 60sec	
Extension	70-72^{0}C	1min/kb	
Final Extension	70-72^{0}C	0-10min	1

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