

Product Information Sheet

Product Name: FlashTaq HotStart 2X 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-FT-MM-10	250 µL	1 x 250µL	10	25	50
FT-MM -100	2.5mL	2 x 1.25mL	100	250	500
FT-MM -250	6.25mL	5 x 1.25mL	250	625	1250
FT-MM -500	12.5mL	10 x 1.25mL	500	1250	2500
FT-MM -1000	25mL	20 x 1.25mL	1000	2500	5000
FT-MM -2500	62.5mL	50 x 1.25mL	2500	6250	12500

Storage and Handling:

Store at -20°C upon arrival.

Product Description:

Empirical's FlashTaq HotStart 2x Master Mix is a 2x ready-to-use master mix that contains FlashTaq HotStart DNA Polymerase; a chemically modified HotStart Taq DNA polymerase in the FlashTaq HotStart 2X Master Mix remains inactive at room temperature until after 2 minutes activation at 94°C, 400µM dCTP, 400µM dGTP, 400µM dATP, 400µM dTTP, and 3mM MgCl₂. Taq DNA Polymerase gene is isolated from *Thermus aquaticus* YT1 and expressed in *E. coli*. Just add template and primers with the Master Mix and the reaction is ready to go.

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:

Component	Volume	Final Concentration
FlashTaq HotStart 2X 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 and FlashTaq HotStart Activation	94°C	30 sec - 2min	1
Denaturation	94-96°C	15 sec - 30 sec	20-30
Annealing°	55-65°C	15 sec - 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 T_m.

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