Product Information Sheet

Product Name: FlashTaq™ HotStart 2X MeanGreen™ MasterMix*

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Concentration:

FlashTaq™ HotStart 2X MeanGreen™ MasterMix: 2X

Storage and Handling:

Upon arrival store at -20°C for provided expiration date, Room Temperature for up to 60 Days, 4°C for up to 120 days. Minimize Freeze thaw of MasterMix to avoid loss of performance.

Product Description:

FlashTaq™ HotStart 2X MeanGreen™ MasterMix:

Contains FlashTaq™ HotStart DNA Polymerase; a chemically modified HotStart Taq DNA polymerase. The FlashTaq™ HotStart 2X MeanGreen™ MasterMix remains inactive at room temperature until after a 2-minute activation at 95°C. The 2X MeanGreen™ MasterMix contains dCTP, dGTP, dATP, dTTP, $MgCl_2$, FlashTaq™ HotStart DNA Polymerase, and MeanGreen™ Dye. Taq DNA Polymerase gene is isolated from *Thermus aquaticus* YT1 and expressed in *E. coli*. Just add template and primers with the MasterMix and the reaction is ready to go. FlashTaq™ HotStart 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:

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
FlashTaq™ HotStart 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 and FlashTaq™ HotStart Activation	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 T_m.

***This product is intended for Research Use Only. This product is manufactured under ISO13485:2016 Quality System Requirements and is available for use as a Raw Material for use in IVD applications. Please contact Empirical Bioscience for further details.**

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