Product Information Sheet and Protocol

Product Name: qPCR Probe 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	
			20µL Reactions	10µL Reactions
SS-QP-MM-10	QP-MM: 0.1mL, ROX: 5uL	QP-MM: 1x0.1mL ROX:1x5uL	10	20
QP-MM -100	QP-MM: 1mL, ROX: 150uL	QP-MM:1 x 1mL ROX: 1x150uL	100	200
QP-MM -500	QP-MM: 5mL, ROX: 150uL	QP-MM:5 x 1mL ROX: 1x150uL	500	1000
QP-MM -1000	QP-MM: 10mL, ROX: 300uL	QP-MM:10x1mL ROX: 2x150uL	1000	2000
QP-MM -2500	QP-MM: 25mL, ROX: 750uL	QP-MM:25x1mL ROX: 5x150uL	2500	5000

Storage and Handling:
Store at -20^{0}C upon arrival.

Product Description:
Empirical's qPCR Probe Master Mix is a 2x ready-to-use master mix for quantitative real time evaluation of DNA using fluorescent probe based detection. Empirical's qPCR Probe Master Mix contains FlashTaq HotStart DNA Polymerase; a chemically modified Taq DNA polymerase that remains completely inactive at room temperature. The enzyme becomes activated after only 2 minutes at 95°C. Empirical's qPCR Probe Master Mix includes dNTPs, MgCl2, and optimized buffer for fast, efficient qPCR. Empirical's qPCR Probe Master Mix has been optimized for use with hydrolysis based probes such as TaqMan, but is also suitable with other probe based detection systems.

Protocol: The following reaction setup and general cycling conditions are recommended, but can vary depending on the template and primers being used. The following set up is for a 20µl reaction size.

Recommended Protocol (20uL Reaction):

PCR Component	Volume/Concentration
2x qPCR Probe Master Mix	10µL
Primer Probe	0.1-0.5µM
ROX Reference Dye	**
Template DNA	0.01-100ng
PCR Grade Water	Fill to 20uL

** Concentration of ROX reference dye is dependent on the qpCR detection machine being used

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

Recommended Cycling Conditions:
Standard protocol:

Cycling Step	Temperature	Holding Time	Cycles
Initial Denaturation	95°C	2 minutes	1
Denaturation	95°C	15 seconds	40
Annealing[1)]	50-65°C	30-60 seconds	
Elongation	72°C	30sec	

[1)]The annealing temperature depends on the melting temperature of the primer probe used.