CitriNStart Taq PCR Master Mix, 2x (PCRMM)

Catalog #MB6068-1, 1 mL
Catalog #MB6068-5, 5 mL
Catalog #MB6068-30, 30 mL

Introduction

ScienCell's CitriNStart Taq PCR Master Mix (PCRMM) is a PCR master mix with a "hot-start" property. PCRMM is ideal for use in routine lab PCR, multiplex PCR and PCR amplifications that require reduced non-specific amplification. The 2X master mix contains dNTPs, Taq DNA polymerase, and an inert yellow-color loading in a single tube. The "hot-start" property achieved through ScienCell's unique chemically modified Taq DNA polymerase provides maximal inhibition of primer dimer formation. The advanced buffer formulation provides superior specificity. The yellow-color inert loading indicator, Orange G, allows for better visualization and tracking of sample loading in PCR tubes and directly to agarose gel. On a 1% agarose gel in 1x TAE, the loading indicator Orange G (yellow color) migrates at approximately 50 bp.

Kit Components

Catalog #MB6068-1

Cat #	Item	Quantity	Storage
MB6068-1	CitriNStart Taq PCR Master Mix, 2x	1 mL	-20°C

Catalog #MB6068-5

Cat #	Item	Quantity	Storage
MB6068-1	CitriNStart Taq PCR Master Mix, 2x	1 mL x 5	-20°C

Catalog #MB6068-30

Cat #	Item	Quantity	Storage
MB6068-10	CitriNStart Taq PCR Master Mix, 2x	10 mL x 3	-20°C

Quality Control

The function of PCRMM was tested by control primer sets with template DNA and visualized by agarose gel electrophoresis. DNase activity was NOT detected by incubating each component of PCRMM with single-stranded and double-stranded DNA at 37 °C for 24 hours.

Product Use

PCRMM is for research use only. It is not approved for human or animal use, or for application in clinical or *in vitro* diagnostic procedures.

Shipping and Storage

The product is shipped on dry ice. Upon receipt, store CitriNStart Taq PCR Master Mix, 2x (Cat #MB6068) at -20^{o}C in a manual defrost freezer. Aliquot as needed. Avoid repeated freeze-and-thaw cycles.

Procedure

***Important: Only** use nuclease-free reagents in PCR amplification.*

1. Thaw CitriNStart Taq PCR Master Mix and place on ice.

2. Prepare 50 µL qPCR reactions in qPCR tubes or plates as shown in Table 1. For other reaction volume setup, scale up or down proportionally.

Table 1. Preparation of 50 µL qPCR reactions

Component	Volume	Final concentration
CitriNStart Taq PCR Master Mix	25 µL	1X
Template DNA	variable	-
Nuclease-free water	variable	-
Forward and reverse primers	variable	250 – 500 nM
Total volume per reaction	50 µL	-

3. Refer to Table 2 for a typical 3-step qPCR program setup or Table 3 for a typical 2-step PCR program setup. Adjust properly according to the optimized PCR conditions for the reactions to run. Load the PCR tubes or plates into the PCR instrument and run the program.

Table 2. A typical 3-step PCR program setup

Step	Temperature	Time	Cycles
DNA polymerase activation	94°C	10 min	1
Denaturation	94°C	20 sec	30-45
Annealing	50 - 72°C	20 sec	
Extension	72°C	1 kb/min	
Optional	72°C	5-10 min	1
Hold	20°C	Indefinite	1

Table 3. A typical 2-step PCR program setup

Step	Temperature	Time	Cycles
DNA polymerase activation	94°C	10 min	1
Denaturation	94°C	30 sec	30-45
Annealing	68°C	0.7 kb/min	
Optional	72°C	5-10 min	1
Hold	20°C	Indefinite	1

4. Load PCR product directly to an agarose gel or store at 4°C until needed.