

MegaMix Platinum 2X qPCR Mastermix, with UNG

P. Code	Quantity in 200 Rxn	Quantity in 1000 Rxn	Component	Description	Lot Number	Expiry
2MMPU-1	2 x 1 mL	10 x 1 mL	2X MegaMix Platinum qPCR Mastermix with UNG	Hot start Taq, dUTPs, UNG in optimised buffer.		
ROX-0.1	1 x 100 µL	5 x 100 µL	25 µM ROX Reference Dye	Passive ROX reference dye		

Applications

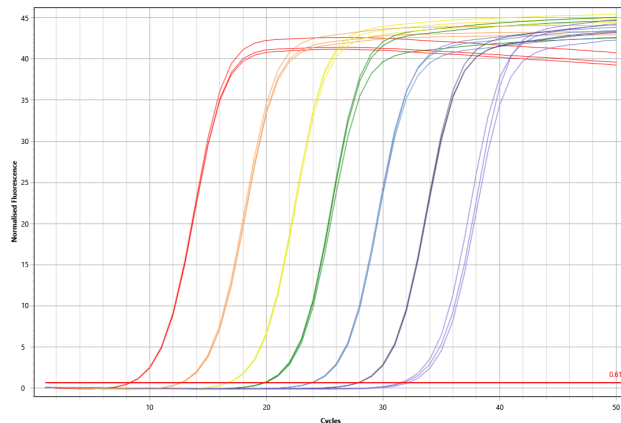
- Multiplexed probe based assays including TaqMan molecular beacons, Scorpions™ probes.
- Quantification of any DNA template (gDNA, cDNA), low copy number samples.

Product Description

Containing all the components needed to perform multiplex qPCR swiftly and reliably. The 2X mix contains chemically modified Hot Start Taq DNA polymerase, dUTP and UNG in Microzone’s proprietary enhancing buffer optimised for amplifying low copy DNA targets. The presence of thermolabile UNG and dUTP eliminates carryover contamination at room temperature. Unlike other UNG enzymes it is totally and irreversibly inactivated during thermocycling allowing post PCR analysis. This mix has been optimized for multiplex assays utilising dual labelled hydrolysis probes and is compatible with both standard and fast cycling conditions.

Key Features

- Multiplexing—excellent for multiplexed reactions consisting of 4 or 5 targets without compromising performance.
- Eliminate carry over contamination—incorporation thermolabile UNG and dUTP prevent amplicon contamination from previous runs.
- Versatile— compatible with standard and fast cycling conditions, GC/AT rich templates.
- Inhibitor Resistance—suitable for direct to PCR with products such as microLYSIS-Plus and microLYSIS-RNA.



MegaMix Platinum demonstrates excellent reproducibility and accuracy across a wide dynamic range. qPCR amplification of mecA gene from seven 10-fold dilutions of synthetic template, three replicates at each concentration. Mic qPCR Cycler (BMS, Upper Coomera - Australia).

Protocol

Thaw all reagents completely and mix well before use.
 Prepare a master mix as described in the table below. This reaction can be scaled according to the quantity of reactions required.
 Mix gently, avoiding bubbles, centrifuge if necessary.
 Include a no template control and positive control as required.

Components	Volume
2X MegaMix Platinum qPCR Mastermix with UNG	10 µL
25 µM ROX Reference Dye (Optional)	Low 0.04 µL / High 0.4 µL
Primers and Probe Mix	x µL
Template	y µL
Just Water (Molecular grade water)	make up to 20 µL

The ROX concentration required will depend on the qPCR instrument in use.

Thermocycling

Transfer the reactions to the thermal cycler and set as follows:

Cycles	Temperature	Time
1	95°C	2 min
40	95°C	3 sec
	60°C	20 sec

Annealing temperature (60°C) may require optimisation depending on the specific primers in use.

The run time can be shortened by optimising the steps of the thermocycling profile.

Note: Low ROX instruments require a ROX final concentration of 50 nM and high ROX instruments require a ROX final concentration of 500 nM.

For research use only

Product Handling

Storage

To ensure the quality of the product until the expiry date keep at the recommended storage temperature and limit exposure to light.

Contamination Control

To prevent erroneous results ensure work environment is free of contamination by cleaning your workstation and equipment with a DNA decontaminant daily, wear gloves, use sterile tubes and filter pipet tips.

Simple | Effective | Efficient