

MegaMix Royal

P. Code	Reactions (20μl)	Volume	Component	Description	Lot Number	Expiry
2MMR-1	100	1 ml	MegaMix Royal	2X Concentrated, Hot start Taq, 400μM dNTPs, 6 mM MgCl ₂ and loading dye in optimised buffer.		

Applications

- Hot Start PCR up to 6 kb
- qPCR (probe or dye based)
- Fast PCR
- Multiplex PCR
- Genotyping
- Amplification of GC and AT rich templates
- TA Cloning
- High Resolution Melting

Product Description

Containing all the components needed to perform PCR swiftly and reliably. The 2X mix contains Hot Start Taq DNA polymerase, 400 μM dNTP, 6 mM MgCl₂ and blue loading dye in Microzone’s proprietary enhancing buffer. MegaMix Royal uses a superior sensitive hot start DNA polymerase. The polymerase becomes active upon heating at 95°C. This ensures a highly specific and sensitive amplification, removing background and primer dimer formation. MegaMix Royal boasts excellent accuracy and produces A-tailed products suitable for ligating into TA cloning vectors. The blue agarose loading dye incorporated

allows easy visualisation and eliminates the need for additional gel loading buffers. The dye does not inhibit restriction enzymes or ligases and does not fluoresce at the wavelengths used by automated DNA sequencers so downstream processes are not impacted.

Key Features

- Hot Start polymerase in Microzone’s proprietary buffer gives unrivalled confidence in PCR amplifications.
- 2X concentrated format.
- Broad range of templates and conditions.
- Extremely stable—can be freeze thawed many times.
- Easy set up and PCR optimisation.

Protocol

This products is to be used as follows.

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
MegaMix Royal	10μl
Primers	x μl
Template	y μl
Just Water (Molecular grade water)	z μl (up to 20 μl)

Thermocycling

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

Cycles	Temperature	Time
1	95°C	5 min
25-40	95°C	15 sec
	55-65°C	15 sec
	72°C	15 sec

Annealing temperature (55-65°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. The extension time is to be increased depending on amplicon length, use 15 sec/kb.

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