

## Reference Guide

## Rcore qPCR Mix (4X)

Catalog	Description
HL – RCqPM4X	625 µl

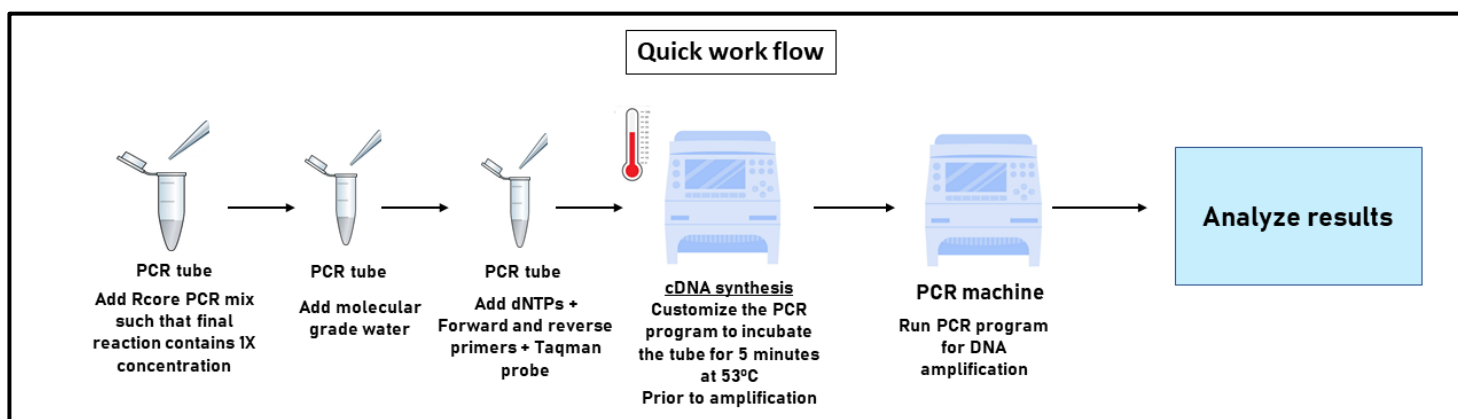
 Store at - 20°C  
 PI/HL-RCqPM4X-02

## Product description

Rcore qPCR Mix is a premixed 4X concentrated reagent ready to use for Real-time Polymerase chain reactions (PCR). RNA template can be directly used for cDNA synthesis followed by amplification in a single tube which greatly reduces the total experimental time. The Rcore qPCR Mix comes with all the necessary reagents that are required for cDNA synthesis and amplification in a single experimental setup. The 4X concentrated mix should be diluted to 1X with the template, primers, probes, and molecular grade water. In the regular PCR program, before the actual start of the amplification cycle, the inclusion of an additional step of 5 minutes at 53°C for cDNA synthesis facilitates the completion of the entire experiment in a single PCR Program.

## Features

- Contains Reverse transcriptase enzyme for cDNA synthesis, HotStart Taq Polymerase to provide a better amplification with 5'-3' Polymerase and Exonuclease Activity
- Includes buffer, and dNTPs for ready to use PCR applications
- High specificity and sensitivity
- Buffer enhancements guarantee performance and reliability



## Reagents provided

Rcore qPCR Mix (4X) (625µl)

## Storage conditions

Rcore qPCR Mix (4X) (625µl) should be stored at -20°C

## Recommended reaction set-up for PCR

The Rcore qPCR mix works the best for specific primers and is not recommended for random primers!

Prepare PCRs using required volumes of freeze-thawed components in the PCR hood as recommended in the table below

PCR Protocol	
Component	Volume(µL)
Rcore qPCR Mix	6.25
Forward primer (10 pm/µL)	0.4-0.7
Reverse primer (10 pm/µL)	0.4-0.7
TaqMan Probe	Variable (user defined)
Template RNA or cDNA	Variable (user defined)
Nuclease Free Water	Variable (user defined)
<b>Total Volume</b>	<b>25</b>

The reaction setup is for guidance and it can be modified according to the user's need. The current product is sufficient for 100 reactions if the above protocol is used.

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Note: Mix the vials with the reaction set up by gentle tapping. A short spin is recommended after gentle mixing to ensure that the reagent mix is not sticking to the walls of the PCR tube

### Thermo Cycling Protocol

Place the tubes in the Thermal Cycler and start the polymerase chain reaction protocol. Below is a general template for PCRs and should be optimized for good results

#### Recommended PCR Program

Operation	Temp	Time	Cycles
For cDNA synthesis	53°C	5 min	1
Start of Amplification program			
Initial denaturation	95°C	15 min	1
Denaturation	95°C	15 sec	35-40 cycles
Annealing & Extension	60°C	60 sec	

### Applications

- End-point and quantitative RT-Polymerase chain reaction (PCR)
- RACE PCR
- Amplification of RNA
- Microarray analysis

Other PCR products from Huwel LifeSciences that you may be interested

S.No.	Product description	Catalogue No.
1.	Rcore qPCR Mix (2X)	HL-RCqPM2X
2.	Rcore qPCR Mix (2X) with UDG***	HL-URCqPM2X
3.	Rcore qPCR Mix (4X) with UDG***	HL-URCqPM4X
4.	Taq Polymerase Enzyme (5U/μl)	HL - Taq - 50 - 250Units HL - Taq - 100 - 500Units HL - Taq - 200 - 1000Units
5.	HotStart Taq Polymerase Enzyme (5U/μl)	HL - HSTaq - 50 - 250Units HL - HSTaq - 100 - 500Units HL - HSTaq - 200 - 1000Units
6.	QuickStart Taq Polymerase Enzyme (5U/μl)	HL - QSTaq - 50 - 250Units HL - QSTaq - 100 - 500Units HL - QSTaq - 200 - 1000Units

\*\*\* This reagent is with Uracil DNA Glycosylase (UDG) which helps in avoiding carry-over contaminations

#### Our Product References

Shivangi Harankhedkar, Gaurav Chatterjee, Sweta Rajpal, (2022) medRxiv, 1 - 11

For further information on protocols and details, please contact our technical support:

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