

## Reference Guide

## R Fast core qPCR Mix (2X)

Catalog	Description
HL - RFCqPM2X	1.3ml

Store at - 20°C  
 PI/HL RFCqPM2X-02

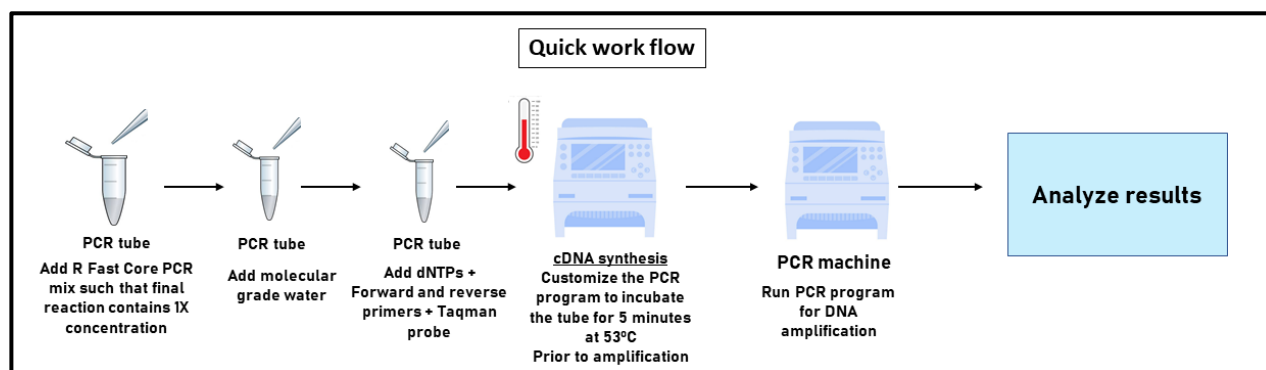
## Product description

R Fast core qPCR Mix is a premixed 2X concentrated reagent ready to use for real-time Polymerase chain reactions (PCR). The QuickStart Polymerase Enzyme included in the premix (2X) reduces the reaction time, thereby speeding up the entire process. The R Fast core qPCR mix is designed for TaqMan-based assays starting with RNA templates. RNA templates can be directly used for cDNA synthesis followed by amplification in a single tube which greatly reduces the total experimental time. The R Fast core qPCR mix comes with all the necessary reagents that are required for cDNA synthesis and amplification in a single experimental setup

The premixed 2X concentrated reagents are ready-to-use for real-time Polymerase chain reactions (PCR). Template of choice along with primer probe mix is to be added such that the final concentration of the PCR mix is 1X in the final assay. The 2X 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, QuickStart Taq Polymerase Enzyme 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

R Fast Core qPCR Mix (2X) (1.3ml)

## Storage conditions

R Fast Core qPCR Mix (2X) (1.3ml) should be stored at -20°C

## Recommended reaction set-up for PCR

The RNA Fast Core 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 Program	
Component	Volume(μL)
R Fast Core q PCR Mix	13.0
Forward primer (10 pm/μL)	0.4-0.7
Reverse primer (10 pm/μL)	0.4-0.7
TaqMan Probe	Variable
Template RNA or cDNA	Variable
Nuclease Free Water	Variable
<b>Total Volume</b>	<b>26</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	1-5 min	1
Denaturation	95°C	1-5 sec	35-40 cycles
Annealing & Extension	60°C	1-5 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.	R Fast core qPCR Mix (4X) ***	HL-RFCqPM4X
2.	Rcore qPCR Mix with UDG (2X)	HL-URCqPM2X
3.	Rcore qPCR Mix with UDG (4X)	HL-URCqPM4X
4.	Taq Polymerase Enzyme (5U/μl)	HL - Taq - 50 - 250 Units HL - Taq - 100 - 500 Units HL - Taq - 200 - 1000 Units
5.	HotStart Taq Polymerase Enzyme (5U/μl)	HL - HSTAQ - 50 - 250 Units HL - HSTAQ - 100 - 500 Units HL - HSTAQ - 200 - 1000 Units
6.	QuickStart Taq Polymerase Enzyme (5U/μl)	HL - QSTAQ - 50 - 250 Units HL - QSTAQ - 100 - 500 Units HL - QSTAQ - 200 - 1000 Units

\*\*\* This reagent is available with Uracil DNA Glycosylase (UDG) also

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