

Reference Guide

Catalog	Description
HL - URRFCqPM4X	650 μ L

 Store at - 20°C
 PI/HL URRFCqPM4X-00

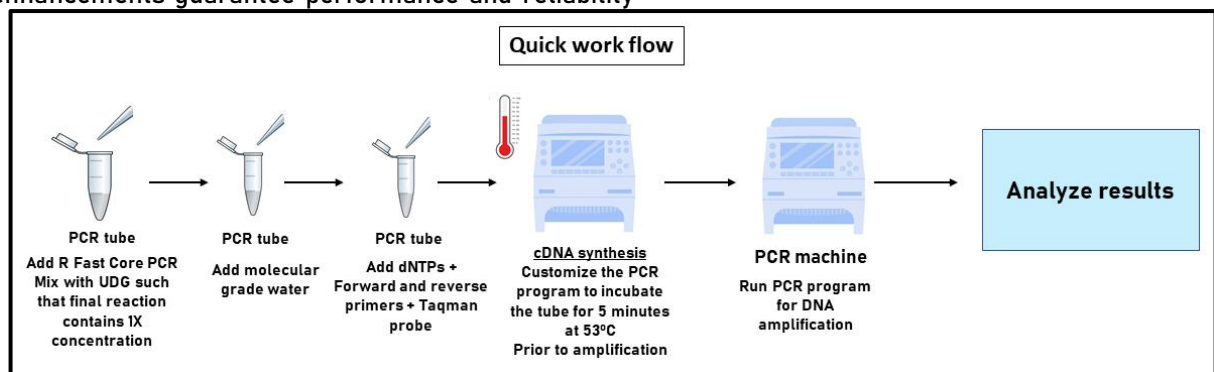
Product description

R Fast core qPCR Mix (4X) with UDG is a premix with concentrated reagents 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 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 QuickStart Polymerase Enzyme included in the premix (4X) greatly reduces the reaction time thereby speeding up the entire process. 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.

The reagent along with Reverse transcriptase, QuickStart Polymerase enzyme, and dNTPs come with dUTP and Uracil DNA Glycosylase (UDG) enzyme. The incorporation of dUTP in place of dTTP to the growing strand during PCR makes it an ideal degradation target for the UDG enzyme. The UDG enzyme gets inactivated at higher temperatures and therefore does not interfere with the amplification while clearing out any potential contamination that may be carried over from previous experiments. The mix is available with and without UDG.

Features

- Contains Reverse transcriptase enzyme for cDNA synthesis, QuickStart Taq DNA polymerase, and Uracil DNA Glycosylase (UDG) 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 (4X) with UDG (650 μ L)

Storage conditions

R Fast core qPCR Mix (4X) with UDG (650 μ L) should be stored at -20°C

Note: Avoid repeated freeze-thawing. Recommended freeze thaw not to exceed more than four times

Recommended reaction set-up for PCR

The R Fast core PCR mix with UDG 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(μ L)
R Fast Core q PCR Mix with UDG	6.5
Forward primer (10 pm/ μ L)	0.4-0.7
Reverse primer (10 pm/ μ L)	0.4-0.7
TaqMan Probe	Variable (user defined)
Template RNA or cDNA	Variable (user defined)
Nuclease Free Water	Variable (user defined)
Total Volume	26

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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.

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

Thermocycling 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 (2X)	HL-RFCqPM2X
2.	RNA Fast qPCR Mix (4X)	HL-RFCqPM4X
3.	RNA Fast qPCR Mix (4X) with UDG ***	HL-URFCqPM4X
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 without Uracil DNA Glycosylase (UDG) also

For further information on protocols and details, please contact our technical support:
info@huwelllifesciences.in