#### Reference Guide

# DNA Fast qPCR Mix with UDG/UNG (2X)



Catalog Description
HL - UDFCqPM2X 1.3ml

Store at - 20° PI/HL UDFCqPM2X-03

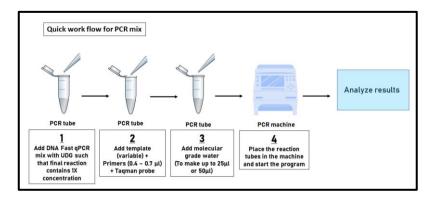
#### **Product description**

DNA Fast qPCR Mix with UDG/UNG (2X) is best suited for fast-paced laboratories. The QuickStart Polymerase Enzyme included in the premix (2X) greatly reduces the reaction time thereby speeding up the entire process. 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 DNA Fast qPCR mix is designed for TaqMan-based assays with DNA templates. The presence of QuickStart Taq Polymerase Enzyme, UDG enzyme, and dNTPs helps in an easy experimental setup and avoids nonspecific amplifications. The DNA Fast qPCR with UDG mix is designed for TaqMan-based assays with DNA templates for contamination-free amplifications.

The reagent along with QuickStart Polymerase Enzyme, 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 QuickStart Taq Polymerase Enzyme to provide a better yield with 5'-3' Polymerase and Exonuclease activity
- Includes QuickStart Tag Polymerase reaction buffer, dNTPs for ready to use PCR applications
- · High specificity and sensitivity
- · Buffer enhancements guarantee performance and reliability



## Reagents provided

DNA Fast gPCR Mix with UDG/UNG (2X) (1.3ml)

# Storage conditions

DNA Fast qPCR Mix with UDG/UNG (2X) (1.3ml) should be stored at  $-20^{\circ}$ C Recommended reaction set-up for PCR

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

PCR Protocol			
Component	Volume(μL)		
DNA Fast qPCR Mix with UDG (2X) Forward primer (10 pm/µL)	13.0 0.4-0.7		
Reverse primer (10 pm/μL)	0.4-0.7		
TaqMan Probe	Variable (user defined)		
Template DNA or cDNA	Variable (user defined)		
Nuclease Free Water	Variable (user defined)		
Total Volume	26 μL		

The reaction set up 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

#### Reference Guide



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	
Initial denaturation	95°C	1-5 min	1	
Denaturation	95°C	1-5 sec	35-40	
Annealing & Extension	60°C	1-5 sec	cycles	

## **Applications**

Routine PCR reactions

**Pharmacogenomics** 

- Gene expression analysis
- Amplified fragment length polymorphism

- cDNA amplification
- Molecular identification of organisms
- Single nucleotide polymorphisms

Viral load detection

Other PCR products from Huwel LifeSciences that you may be interested

S.No.	Product description	Catalogue No.
1.	DNA Fast qPCR Mix (2X) ***	HL-DFCqPM2X
2.	Taq Polymerase Enzyme (5U/μl)	HL - Taq - 50 - 250Units HL - Taq - 100 - 500Units HL - Taq - 200 - 1000Units
3.	HotStart Taq Polymerase Enzyme (5U/μl)	HL - HSTaq - 50 - 250Units HL - HSTaq - 100 - 500Units HL - HSTaq - 200 - 1000Units
4.	QuickStart Taq Polymerase Enzyme (5U/μl)	HL - QSTaq - 50 - 250Units HL - QSTaq - 100 - 500Units HL - QSTaq - 200-1000Units

<sup>\*\*\*</sup> The PCR mix is without UDG also

For further information on protocols and details, please contact our technical support:  $\underline{ info@huwellifesciences.in}$ 



HLSS Manufacturing Pvt Ltd,
Plot Nos; M 14, M 15, M 16,
TSIIC, Medical Devices Park,
Sultanpur Village, Ameenpur Mandal,
Sangareddy Dist, Telangana-502319,
www.huwellifesciences.in, Email:info@huwellifesciences.in