

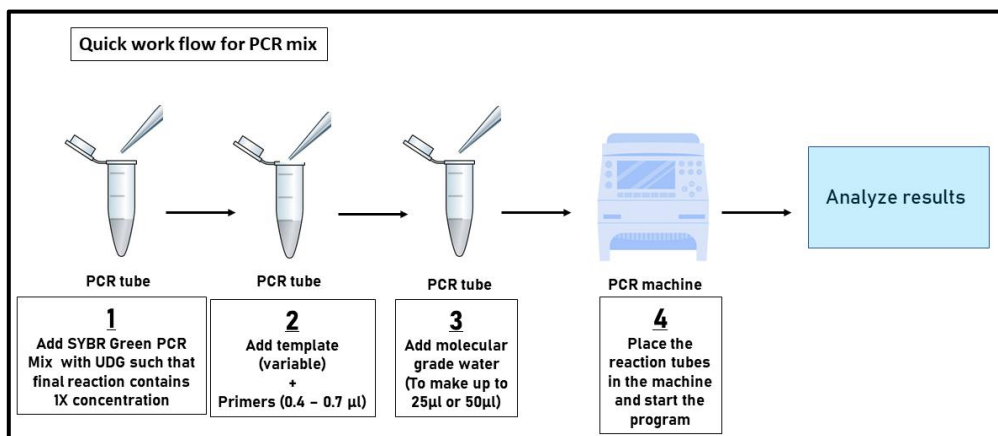
### Product description

**2X SYBRGreen PCR Mix with UDG** is ready to use concentrated mix with the detection reagent for Real-Time Polymerase chain reactions. The mix includes HotStart *Taq* Polymerase Enzyme, buffer, dNTPs, and SYBR Green detection reagent. The fluorescent SYBRGreen reagent binds to the growing strand of DNA and is proportional to the polymerization. The quantity of double-stranded DNA formed can be correlated with the amount of SYBRGreen intercalation in DNA, hence it helps in quantitative experiments. The mix contents do not interfere with the Polymerization. Therefore, it can be safely used for the detection of dsDNA as and when it is formed. SYBRGreen dye is sensitive to light, therefore should not be exposed to light for a long period.

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



### Reagents supplied

2X SYBRGreen PCR Mix with UDG

### Storage conditions

2X SYBRGreen PCR Mix with UDG should be stored at -20°C

### Recommended reaction set-up for PCR

Prepare PCRs using required reagents as recommended in the table below

#### PCR Program

Component	Volume( $\mu$ L)
SYBR Green PCR Mix	13.0
Forward primer (10 pm/ $\mu$ L)	0.4-0.7
Reverse primer (10 pm/ $\mu$ L)	0.4-0.7
Template DNA	Variable (user defined)
Nuclease Free Water	Variable (user defined)
<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.

## Reference Guide

**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
Initial denaturation	95°C	15 min	1
Denaturation	95°C	15 sec	35-40
Annealing & Extension	60°C	60 sec	cycles

### Applications

- Gene expression studies
- Detection of pathogens
- Microarray validation
- Effective detection of low concentration targets
- Quantification of Genes

#### Other PCR products from Huwel Life Sciences that you may be interested

S.No.	Product description	Catalogue No.
1.	2X SYBR Green PCR Mix***	HL - SYPCM - 100
2.	Taq Polymerase Enzyme (5U/μl)	HL - Taq - 50 - 250 Units HL - Taq - 100 - 500 Units HL - Taq - 200 - 1000 Units
3.	HotStart Taq Polymerase Enzyme (5U/μl)	HL - HSTAQ - 50 - 250 Units HL - HSTAQ - 100 - 500 Units HL - HSTAQ - 200 - 1000 Units
4.	QuickStart Taq Polymerase Enzyme (5U/μl)	HL - QSTAQ - 50 - 250 Units HL - QSTAQ - 100 - 500 Units HL - QSTAQ - 200 - 1000 Units

\*\*\* The PCR mix is without UDG also

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