# **SIBER Q-PCR Master Mix**

# **ROX-step**

Cat. No. : DA0110-0001

Concentra	ntion	:	2X
Volume	:		1 ml
Storage	:		-20 $^{\circ}$ C protected from light.

#### Description

The SYBR Green Premix is a ready-to-use, 2X concentrated master mix reagent including Hotstart Taq and SYBR Green I, specially designed for real-time PCR with intercalator method.

### Content

2X SYBR Green Premix containing:

- Hotstart Taq DNA polymerase
- SYBR Green real-time PCR Buffer
- dNTP mix including dATP dCTP dGTP dTTP
- 5mM MgCl<sub>2</sub>

## Procedure

A. Preparation of the PCR Mix

1. Preparing a master mix as follows:

Component	Volume / reaction	Final conc.	
2x SYBR Green Premix	12.5 µl		
Forward Primer			
(10 µM)	variable	0.3~1.0μM	
Reversed Primer			
(10 µM)	variable	0.3~1.0μM	
H <sub>2</sub> O upt	to 23.0 µl		

- 2. Mix the master mix thoroughly by pipetting up and down.
- 3. dispense  $23 \,\mu l$  volumes into PCR tubes or plates.

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4. Add 2  $\mu$ l of the DNA or cDNA, Mix carefully by pipetting up and down.

### Performing PCR

1. Program your instrument as follows:

Step	Time	Temperature
Initial PCR	10 min	95 ℃
activation step		
2-step cycling	15~30 sec	<b>94</b> ℃
Denaturation		
Annealing	30~60 sec	<b>50-68</b> °C
/Extension		
Cycle number	35~45 cycles	
Optional:		
Data acquisition	15 sec	X <sup>*</sup> °C

\* Tm dimmer < X < Tm product

- 2. Place the PCR tubes or PCR plates in the thermal cycler and start the cycling program.
- 3. Perform a melting curve analysis of the PCR products.

#### SYBR Green Premix performance test

• Consistently high specificity over a broad dynamic range. Ten fold serial dilution  $(10^9 \sim 10^0)$  of plasmid DNA were amplified using primers specific to the NNV gene, Triplicate reactions at each concentration were amplified along with no- template controls. Standard curve had r=0.999, efficiency=92.1%, Standard deviation of Ct <1.0.