

## SuPrimeScript RT-PCR Kit

### SuPrimeScript RT-PCR Premix (2X)

Product Name	Cat. No.	Size
SuPrimeScript RT-PCR Kit	SR-6000	50 rxn* X 1
	SR-6001	50 rxn* X 2
	SR-6002	50 rxn* X 4
SuPrimeScript RT-PCR Premix (2X)	SR-7000	1.0 ml X 1
	SR-7001	1.0 ml X 3
	SR-7002	1.0 ml X 5
SuPrimeScript RT-PCR Premix (2X, 8-strip)	SR-8000	96 tube X 1
	SR-8001	96 tube X 3
	SR-8002	96 tube X 5

\* For 50 X 50 $\mu$ l reaction

#### Package information

SR-6000	Enzyme Solution (250 $\mu$ l X 1) - with SuPrimeScript RTase, HS Prime Taq DNA Polymerase and RNase Inhibitor
	2X Reaction Buffer (1.5 ml X 1) - with reaction buffer, dNTPs mixture and loading dye
SR-7000	2X SuPrimeScript RT-PCR Premix (1.0 ml X 1) - with SuPrimeScript RTase, HS Prime Taq DNA Polymerase, RNase Inhibitor, reaction Buffer, enzyme stabilizer, dNTPs mixture and loading dye
SR-8000	2X SuPrimeScript RT-PCR Premix 10 $\mu$ l in 0.2ml 8-strip PCR tube (96 tube X 1) - with SuPrimeScript RTase, HS Prime Taq DNA Polymerase, RNase Inhibitor, reaction Buffer, enzyme stabilizer, dNTPs mixture and loading dye

#### Description

SuPrimeScript RT-PCR Kit and RT-PCR Premix provides a complete system for fast, high-yield and reliable single tube one-step RT-PCR.

#### Usage Information

- The reaction temperature for cDNA synthesis is **50°C**.
- The reaction time for cDNA synthesis is **30 min**.
- In SuPrimeScript RT-PCR Kit, the concentration of Reaction Buffer is **2X**.
- SuPrimeScript RTase is **RNase H<sup>-</sup>**.
- SuPrimeScript RT-PCR Kit and RT-PCR Premix contains HS Prime Taq DNA Polymerase (**hot-start Taq DNA Polymerase**).

● **Research Use Only**

● **Store at -20°C**

#### Protocol

The following 20 $\mu$ l reaction volume can be used for one-step RT-PCR.

1. Prepare the following components to a PCR tube.

##### • SuPrimeScript RT-PCR Kit

Components		Volume	Volume
RNase-free water		add up to 20 $\mu$ l	add up to 50 $\mu$ l
Primer	Upstream Primer (10 pmoles/ $\mu$ l)	1 $\mu$ l	2.5 $\mu$ l
	Downstream Primer (10 pmoles/ $\mu$ l)	1 $\mu$ l	2.5 $\mu$ l
RNA	- Total RNA (1 ng~500 ng)	x $\mu$ l	x $\mu$ l
	- mRNA (0.1 ng~50 ng)		
2X Reaction Buffer		10 $\mu$ l	25 $\mu$ l
Enzyme Solution		2 $\mu$ l	5 $\mu$ l

→ Mix by pipetting gently up and down. Centrifuge briefly to collect residual liquid from the wall of the tube.

##### • SuPrimeScript RT-PCR Premix (2X)

Components		Volume
RNase-free water		add up to 20 $\mu$ l
Primer	Upstream Primer (10 pmoles/ $\mu$ l)	1 $\mu$ l
	Downstream Primer (10 pmoles/ $\mu$ l)	1 $\mu$ l
RNA	- Total RNA (1 ng~500 ng)	x $\mu$ l
	- mRNA (0.1 ng~50 ng)	
2X SuPrimeScript RT-PCR Premix		10 $\mu$ l

- In case 8-strip PCR tube type product that SR-8000, add the Primer, RNA and RNase-free water to 8-strip PCR tube that contain RT-PCR Premix 10 $\mu$ l.

→ Mix by pipetting gently up and down. Centrifuge briefly to collect residual liquid from the wall of the tube.

2. PCR cycling

Step	Temp. & Time		Cycles
	Temp.	Time	
cDNA synthesis	50°C	30 min	1
Initial denaturation	95°C	5 min	1
Denaturation	95°C	30 sec	30 ~ 40
Annealing	x°C	30 sec	
Extension	72°C	1 min/kb	
Final Extension	72°C	5 min	1

3. Separate the PCR products by agarose gel electrophoresis and visualize with EtBr or any other means.