

SuperiorScript III Master Mix

Cat.#	Size	Conc.
RT300S	50 reactions	5X
RT300M	250 reactions	5X
RT300L	500 reactions	5X

Expire date:

Store at -20°C

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

Product description

SuperiorScript III Master Mix is ready-to-use a First-Strand cDNA synthesis mixture containing SuperiorScript III RT, RNase Inhibitor, a proprietary helper protein, random primers, MgCl₂, and dNTPs. This formulation can be used with trace and very high amounts of input RNA (up to 2.5 µg total RNA in a 20 µL reaction). SuperiorScript III Reverse Transcriptase is genetically engineered version of M-MLV RT which is reduced RNase H activity and increased thermostability, thus this enzyme can synthesize first-strand cDNA at elevated temperatures up to 55 °C. SuperiorScript III Reverse Transcriptase shows improved cDNA yields and RNA detection sensitivity than the competitor's enzyme. This enzyme is capable of synthesizing cDNA from 100 bp to 12 kb or more.

Applications

- First-Strand cDNA synthesis
- Conventional PCR
- Real-time quantitative RT-PCR (qRT-PCR)

Quality control

- Purity: >99% on SDS-PAGE
- Endonuclease-free
- Exonuclease-free
- RNase-free
- Inhibitor-free
- Satisfactory yield and length of cDNA products

Composition

- SuperiorScript III Reverse Transcriptase
- SuperiorScript III RT Buffer
- dNTP mixture
- RNase inhibitor
- Random primers
- Helper protein

Note

- High quality RNA is needed for accurate quantification in qPCR. RNA should be kept in the absence of RNase contamination.
- Template RNA can range up to 2.5 µg in a 20µL cDNA synthesis reaction.
- Amplification Grade DNase I can be used to remove genomic DNA contamination from the total RNA.
- Shorter incubation times and/or higher temperatures may be used (e.g., 50°C for 30 minutes), but may result in reduced yields of cDNA.
- Longer incubation times may be used for increased yields of cDNA.
- Undiluted synthesized cDNA may be used up to 10% of the qPCR reaction volume (e.g., for a 20 µL qPCR, use up to 2 µL of undiluted cDNA).

Standard reaction conditions

SuperiorScript III Master Mix	4 µl
Template RNA	X µl
Sterile water (RNase free)	up to 20 µl

→ incubate at 25°C for 10 min and 42°C for 60 min.

→ Incubate at 85°C for 5 min to inactivate the reaction.

※'Standard conditions' is only a general recommendation. The experimental conditions should be adjusted according to the purpose and sample.

Limitation of Liability

In no event will Enzynomics be liable for any direct, indirect, consequential, or incidental damages arising out of the use, the results of use, or the inability to use this product.

SuperiorScript III Master Mix

Cat.#	Size	Conc.
RT300S	50 reactions	5X
RT300M	250 reactions	5X
RT300L	500 reactions	5X

Expire date:

Store at -20°C

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

Product description

SuperiorScript III Master Mix is ready-to-use a First-Strand cDNA synthesis mixture containing SuperiorScript III RT, RNase Inhibitor, a proprietary helper protein, random primers, MgCl₂, and dNTPs. This formulation can be used with trace and very high amounts of input RNA (up to 2.5 µg total RNA in a 20 µL reaction). SuperiorScript III Reverse Transcriptase is genetically engineered version of M-MLV RT which is reduced RNase H activity and increased thermostability, thus this enzyme can synthesize first-strand cDNA at elevated temperatures up to 55 °C. SuperiorScript III Reverse Transcriptase shows improved cDNA yields and RNA detection sensitivity than the competitor's enzyme. This enzyme is capable of synthesizing cDNA from 100 bp to 12 kb or more.

Applications

- First-Strand cDNA synthesis
- Conventional PCR
- Real-time quantitative RT-PCR (qRT-PCR)

Quality control

- Purity: >99% on SDS-PAGE
- Endonuclease-free
- Exonuclease-free
- RNase-free
- Inhibitor-free
- Satisfactory yield and length of cDNA products

Composition

- SuperiorScript III Reverse Transcriptase
- SuperiorScript III RT Buffer
- dNTP mixture
- RNase inhibitor
- Random primers
- Helper protein

Note

- High quality RNA is needed for accurate quantification in qPCR. RNA should be kept in the absence of RNase contamination.
- Template RNA can range up to 2.5 µg in a 20µL cDNA synthesis reaction.
- Amplification Grade DNase I can be used to remove genomic DNA contamination from the total RNA.
- Shorter incubation times and/or higher temperatures may be used (e.g., 50°C for 30 minutes), but may result in reduced yields of cDNA.
- Longer incubation times may be used for increased yields of cDNA.
- Undiluted synthesized cDNA may be used up to 10% of the qPCR reaction volume (e.g., for a 20 µL qPCR, use up to 2 µL of undiluted cDNA).

Standard reaction conditions

SuperiorScript III Master Mix	4 µl
Template RNA	X µl
Sterile water (RNase free)	up to 20 µl

→ incubate at 25°C for 10 min and 42°C for 60 min.

→ Incubate at 85°C for 5 min to inactivate the reaction.

※'Standard conditions' is only a general recommendation. The experimental conditions should be adjusted according to the purpose and sample.

Limitation of Liability

In no event will Enzynomics be liable for any direct, indirect, consequential, or incidental damages arising out of the use, the results of use, or the inability to use this product.