

 **FastGene**® Scriptase II

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**cDNA Synthesis  
5x ReadyMix**

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LS52	FastGene® Scriptase Basic (20.000 units at 200 U/μl)	100 Reactions
LS62	FastGene® Scriptase Basic cDNA Synthesis containing Oligo dTs, random hexamer and RNase inhibitor	100 Reactions
LS53	FastGene® Scriptase II (20.000 units at 200 U/μl)	100 Reactions
LS63	FastGene® Scriptase II cDNA Synthesis containing Oligo dTs, random hexamer and RNase inhibitor	100 Reactions
LS64	FastGene® Scriptase II cDNA Synthesis 5x ReadyMix containing random hexamer, RNase inhibitor and Helper Protein	100 Reactions
LS65	FastGene® Scriptase II cDNA Synthesis 5x ReadyMix OdT containing random hexamer, Oligo dTs, RNase inhibitor and Helper Protein	100 Reactions

**Manual**

**LS64**

Version 3.1  
March 2020

*For Research use only*



**Store at -20°C**

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## Product description

### Reverse transcription

The ability to reverse the process of transcription from DNA to RNA has been a crucial application of modern molecular biology. The enzyme, a RNA-dependent DNA-Polymerase is called reverse transcriptase. Reversing the messenger RNA delivers the complementary DNA, which can be detected or quantified using PCR and qPCR approaches.

The lack of the 3'→5' exonuclease activity made the MuLV increasingly the enzyme of choice. The MuLV has also been used as a template to engineer new enzymes with additional features.

The FastGene® Scriptase II is an engineered enzyme with a reduced RNase H activity and comes ready-to-use with all necessary ingredients to perform a reverse transcription.

## Composition (100 Reactions)

- FastGene® Scriptase II
- 5x FastGene® Scriptase II buffer
- dNTP Mixture
- RNase Inhibitor
- Random Hexamer
- Helper Protein

## Quality Control

- Purity: >99% on SDS-PAGE
- Endonuclease-free
- Exonuclease-free
- RNase-free
- Inhibitor-free
- Satisfactory Yield of DNA products

## Protocol

1. Mix the ReadyMix with the RNA Template using the following setup:

5x FastGene® Scriptase II ReadyMix (LS64)	4 µl
High quality RNA-template*	x µl
Sterile Water	up to 20 µl

\*Concentration of template RNA can be up to 1 µg

2. Incubate at 25 °C for 10 minutes.

3. Incubate at 42 °C for 60 minutes\*.

**Note:** The recommended incubation time can be reduced to 5 minutes depending on the product abundance and size. Please download our Technical Note showing the performance at lower temperature (down to 5 min.) at our website [www.nippongenetics.eu/en/](http://www.nippongenetics.eu/en/).



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3. Inactivate the FastGene Scriptase II by incubating at 85°C for 5 min.

4. Store the cDNA at -20 °C or use it for downstream application.

**Note:** Up to 10 % of the qPCR reaction volume can be of the undiluted synthesized cDNA .