FastGene® Scriptase Basic

# Enzyme

# Manual

**LS52**

Version 1.2

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**Store at -20°C**



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# Product description

**Reverse transcription**

The ability to reverse the process of translation 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 Basic is an enhanced version of the original MuLV RT.

# Kit Content
**(100 Reactions)**

- FastGene® Scriptase Basic (200 U/µl)
- 10x FastGene® Scriptase Basic buffer
- dNTP Mixture (2 mM each)
- Sterile water (RNase free)

# Quality Control

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

Concentration of template RNA

- *Total RNA: 1 ng-5 µg*
- *Messenger RNA (mRNA): 1 ng-0.25 µg*
- *Specific RNA: 0.01 pg-0.5 µg*

1. **Mix the recommended concentration of RNA template with 1 µl oligo dT primer (80 µM) and/or 1 µl random hexamer (100µM)**
2. **Incubate at 42 °C for 5 minutes.**

*Note: Add an additional annealing step of 10 minutes at 25°C if random hexamers are used.*

3. **Store the RNA mixture on ice and add followed components:**

| | | |
|---|---|---|
| 10x FastGene® Scriptase Basic buffer | | 2 µl |
| FastGene® Scriptase Basic (200 units/µl) | | 1 µl |
| dNTP mixture (10 mM each) | | 2 µl |
| RNA-Template | | x µl |
| Primer | | 1-2 µl |
| RNase Inhibitor | | 0,5 µl |
| Distilled Water | up to | 20 µl |

4. **Incubate at 42°C for 60 min.**

*Note: FastGene® Scriptase Basic can perform optionally over the full range of 42°C-50°C after optimization.*

5. **Incubate 90 °C for 5 min for complete enzyme deactivation.**

# FastGene® Scriptase Basic

## Enzyme

Please contact us for additional information:
**info@nippongenetics.eu**
Please contact our technical support:
**support@nippongenetics.eu**

| | | |
|---|---|---|
| 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 |



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