LAMDA BIOTECH

# PRODUCT INFORMATION

**Catalog No.:** G207-100

**Product Name:** **RT™ Plus Master Mix**

**Size:** 100 rxns

**Kit Components:**

| | |
|---|---|
| EasyScript™ Plus RTase (200 U/µl): | 100 µl |
| 2X Reaction Mix: | 1200 µl |
| Nuclease-free $H_2O$: | 2x1000 µl |

**Description:** **EasyScript™ Plus Reverse Transcriptase,** or called **EasyScript™ Plus RTase**, is a novel recombinant reverse transcriptase with higher efficiency in the first-strand cDNA synthesis from RNA templates with secondary structures and GC-rich RNA templates. EasyScript™ Plus RTase can synthesize full-length cDNA libraries from RNA templates up to 15 kb in length, with proofreading ability due to the presence of a fidelity-enhancing subunit, making this RTase an excellent choice for whole genome sequencing.

**RT™ Plus Master Mix** is a proprietary cDNA Synthesis Supermix containing all materials required for first-strand cDNA synthesis in a 2X concentration, RNaseOFF Ribonuclease Inhibitor, dNTPs, and a balanced concentration for Oligo(dT) and Random Primers. The first-strand cDNA can be directly used as a template in PCR and other applications.

**Advantages:**

- Up to 15 kb cDNA synthesis.
- Ensures sample to sample consistency.
- Large RNA sample volume capacity.
- Ready-to-use.

**Storage:** Store at -20°C in a frost-free freezer.

**Protocol:**

1. Thaw RNA templates and all reagents on ice. Mix each solution by gently vortexing.
2. Assemble the following components in a tube on ice, and mix well:

| Components | Volume | Final Conc. |
|---|---|---|
| Total RNA, or | Variable | 1 ng - 2 µg/rxn |
| mRNA | Variable | 1 pg - 2 ng/rxn |
| 2X Reaction Mix | 10 µl | 1X |
| $H_2O$ | Up to 19 µl | - |

3. Heat the mixture at 65°C for 5 mins and incubate on ice for at least 1 min.
4. Collect all components by a brief centrifugation and add 1 µl of the **EasyScript™ Plus RTase** to the tube.
5. Mix well and collect all the components by a brief centrifugation.
6. Incubate the tube at room temperature for 10 min for annealing.
7. Perform cDNA synthesis by incubating the tube for 50 min at 50°C.
8. Stop the reaction by heating it at 85°C for 5 min.
9. Chill on ice. The newly synthesized first-strand cDNA is ready for immediate downstream applications.

| Related Products | Catalog No. |
|---|---|
| • 100bp DNA Ladder | M107 |
| • 1Kb DNA Ladder II | M108 |
| • DNA SafeStain | C138 |
| • Standard-Agarose | A113 |