

First Strand cDNA Synthesis (M0368)

New England Biolabs

Abstract


This protocol is for the "First Strand cDNA Synthesis Kit using ProtoScript II Reverse Transcriptase (M0368)".

Citation: New England Biolabs First Strand cDNA Synthesis (M0368). [protocols.io](https://www.protocols.io)

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Materials

 ProtoScript II Reverse Transcriptase - 4,000 units [M0368S](#) by [New England Biolabs](#)

Protocol

Step 1.

In a sterile microfuge tube add:

 [PROTOCOL](#)

. [M0368 RNA and Primer mixture](#)

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 [ANNOTATIONS](#)

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Optionally, heat for 3-5 minutes at 65-70°C. Spin briefly and place promptly on ice.

Step 1.1.

RNA solution 1ng-1 µg total RNA or 1-100 ng polyA-selected RNA

Step 1.2.

Primer (50uM dT or 60uM Random Primer Mix) **2 µL**

Step 1.3.

10mM dNTP mix **1 µL**

Step 1.4.

Nuclease-free H₂O to **final volume of 12 µL**

Step 2.

Add the following (bringing to **20 µL final volume**):

 [PROTOCOL](#)

. [M0368 RT Mixture](#)

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Step 2.1.

5X ProtoScript II RT Reaction bufferr **4 µL**

Step 2.2.

0.1M DTT **2ul**

Step 2.3.

murine RNase inhibitor (40U/ul) **1 µL**

Step 3.

Incubate at 42°C for 30min-1hr.

🕒 [DURATION](#)

01:00:00

■ [ANNOTATIONS](#)

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If Random Primer Mix is used, an incubation step at 25°C for 5 minutes is recommended before the 42°C incubation.

Step 4.

Inactivate enzyme at 80°C for 5 minutes.

🕒 [DURATION](#)

00:05:00

Step 5.

Store products at -20°C or proceed to next step(s)