I. List of Components

Always store any unused product at 20–22°C, either (1) back in the original foil pouch, re-sealed with desiccant; or (2) in a desiccator.

- RNA to cDNA EcoDry Premix 8-tube strips

  NOTE: Each tube contains lyophilized master mix with the following components:

  - SMART® MMLV Reverse Transcriptase
  - Random hexamer and/or oligo(dT)$_{18}$ primers
  - $MgCl_2$ (6 mM final conc.)
  - BSA
  - DTT
  - dNTP Mix
  - Reaction Buffer
  - Cryoprotectant
  - Stabilizers
- Optically Clear Cap Strips (8 caps/strip)

II. Additional Materials Required

- RNase-free H_2O
- Total or poly A^+ RNA template
- [Optional] 60 mM EDTA
- [Optional] Benchtop centrifuge

III. First-Strand cDNA Synthesis Reaction

1. The 20-µl reaction described below is suitable for synthesizing first-strand cDNA from total or poly A^+ RNA. To measure yield by monitoring the incorporation of [α-^{32}P]dCTP, see Ausubel *et al*., 1995.
2. Add 1 ng–1 µg of poly A^+ RNA or 5 ng–5 µg of total RNA in RNase-free H_2O to obtain a final volume of 20 µl.

   NOTE: Prepare sufficient RNA/ H_2O to reconstitute the total number of wells required.
3. Pipet 20 µl of the RNA/H_2O into each tube of RNA to cDNA EcoDry Premix that you require. Vortex or pipet the solution to mix.

   NOTE: It is not necessary to pre-heat the RNA at 70°C prior to starting the first-strand cDNA synthesis reaction. Do **not** pre-heat the EcoDry tubes—this will inactivate the reverse transcriptase.
4. Incubate at 42°C for 60 min.
5. Stop the reaction by heating at 70°C for 10 min or by adding 4 µl of 60 mM EDTA.

IV. Reference

Ausubel, F. M. *et al*. (1995) In *Current Protocols in Molecular Biology* (Greene Publishing Associates, Inc. and John Wiley & Sons, Inc.), Supplement 29, Section 5.5.

Notice to Purchaser