Accurate mRNA Analysis Using the RNA Reagent Kit

In mRNA analysis using the MCE-202 MultiNA, mRNA peaks are detected at positions that are consistent with the ladder sample. Additionally, 1.2 knt and 1.3 knt mRNA are clearly resolved.

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Introduction

In RNA research, it is necessary that the status of the RNA quality be known at all times to ensure that RNA decomposition due to RNase activity has not occurred. Here we introduce an example of mRNA analysis using the RNA Reagent Kit.

Results

Figure 1 shows the analysis results of the mRNA sample and the RNA 6000 Ladder using the MCE-202 MultiNA. For the mRNA sample (upper), in addition to the lower marker (LM), two peaks are visible in the region of 27% to 30% along the migration time index. From their positional relationship to the ladder peaks, these two peaks are recognized as 1.2 knt and 1.3 knt mRNA.

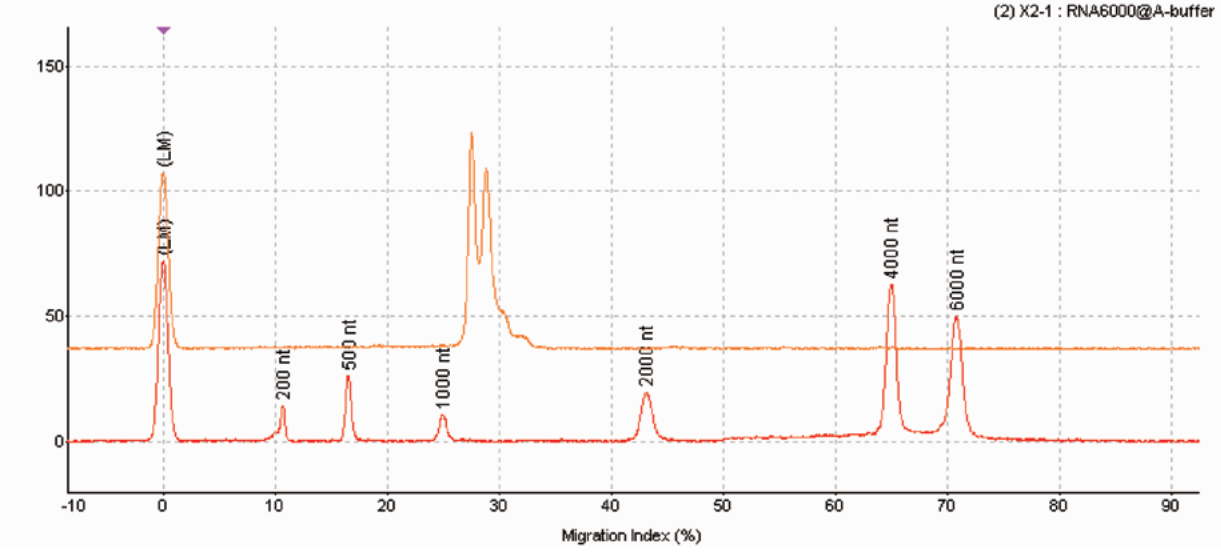

Fig. 1 Electropherogram of mRNA Sample and RNA 6000 Ladder Using the RNA Reagent Kit for MultiNA

Analytical Conditions and Procedure

Instrument: MCE-202 MultiNA
Analysis mode: RNA premix
Sample: mRNA mixture of 1.2 knt and 1.3 knt
(Details not disclosed)

Reagents:

- RNA Reagent Kit for MultiNA
  (Shimadzu) P/N 292-27913-91
- SYBR® Green II nucleic acid gel stain
  (Invitrogen) S-7586
- UltraPure® Formamide
  (Invitrogen) 15515-026
- RNA 6000 Ladder
  (Applied Biosystems) AM-7152
- THE RNA Storage Solution
  (Applied Biosystems) AM-7001

Experimental Method:

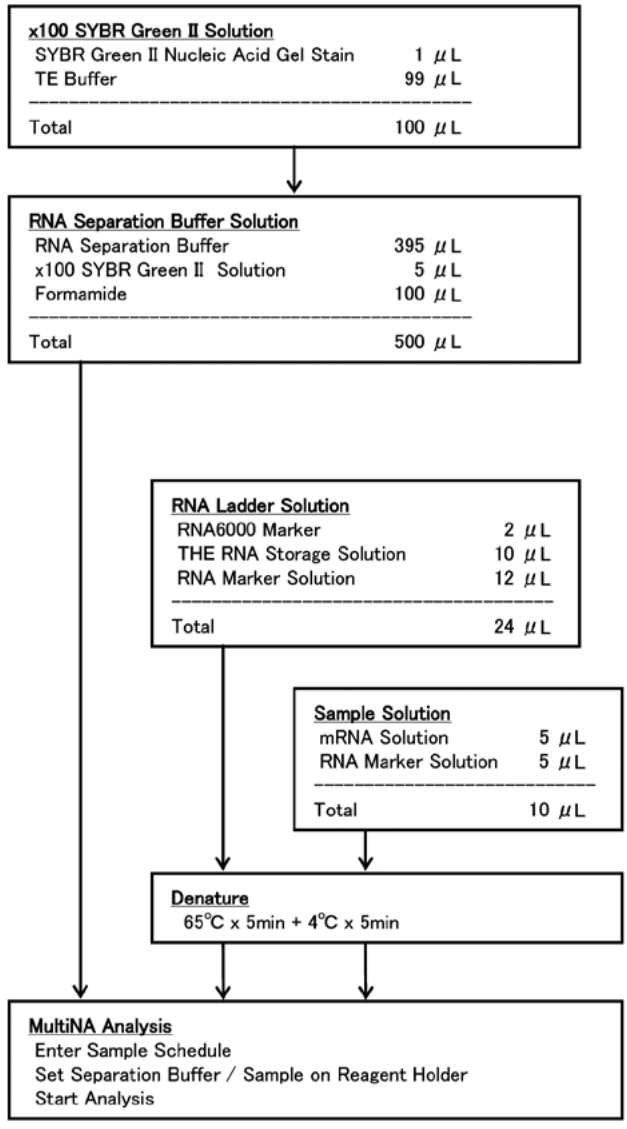

Fig. 2 Experimental Procedure (for 6 Samples)

(Note) For detailed operational information related to analysis using the MCE-202 MultiNA, please refer to the MCE-202 MultiNA Instruction Manual.

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