

# RiboMAX™ Large Scale RNA Production Systems

INSTRUCTIONS FOR USE OF PRODUCTS P1280 AND P1300.

Quick  
PROTOCOL

## Transcription Protocol

### Before You Begin

- Prepare solution of chloroform:isoamyl alcohol (24:1)
- Prepare TE-saturated (pH 8.0) phenol:chloroform:isoamyl alcohol (25:24:1)
- Prepare solutions of 70% and 95% ethanol
- Prepare RNA loading buffer
- Prepare RNA sample buffer
- Prepare MOPS buffer
- Prepare 25mM rNTPs

### Preparation and Linearization of Template

DNA templates should be linearized by digestion with the appropriate restriction endonuclease followed by a cleanup procedure, such as the Wizard® DNA Clean-Up System or phenol extraction followed by ethanol precipitation.

### Transcription Procedure

1. Assemble the reaction components appropriate for SP6 or T7 RNA Polymerase at room temperature in a 1.5ml microcentrifuge tube. After all the components are added, mix by pipetting gently.

#### SP6 Reaction Components

|                                    |       |
|------------------------------------|-------|
| SP6 Transcription 5X Buffer        | 20µl  |
| rNTPs (25mM ATP, CTP, GTP, UTP)    | 20µl  |
| linear DNA template (5–10µg total) |       |
| plus Nuclease-Free Water           | 50µl  |
| Enzyme Mix (SP6)                   | 10µl  |
| final volume                       | 100µl |

#### T7 Reaction Components

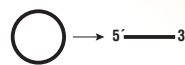
|                                    |       |
|------------------------------------|-------|
| T7 Transcription 5X Buffer         | 20µl  |
| rNTPs (25mM ATP, CTP, GTP, UTP)    | 30µl  |
| linear DNA template (5–10µg total) |       |
| plus Nuclease-Free Water           | 40µl  |
| Enzyme Mix (T7)                    | 10µl  |
| final volume                       | 100µl |

Larger scale reactions may be performed by increasing ALL volumes proportionally.

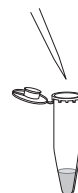
2. Pipet gently and incubate at 37°C for 2–4 hours.

DNA templates can be removed by DNase treatment. RNA can be visualized by gel electrophoresis.

See additional protocol information in Technical Bulletin #TB166, available online at [www.promega.com/tbs](http://www.promega.com/tbs)



Linearize DNA template by restriction digestion. Clean up linearized template.



Assemble the reaction components appropriate for SP6 or T7 RNA Polymerase.



Incubate at 37°C for 2–4 hours.

### ORDERING/TECHNICAL INFORMATION:

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