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Protocol for Standard RNA Synthesis with Hi-T7 RNA Polymerase (NEB #M0658)

New England Biolabs¹¹New England Biolabs

1 Works for me dx.doi.org/10.17504/protocols.io.8tnhwme

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EXTERNAL LINK

<https://www.neb.com/protocols/2018/06/21/protocol-for-standard-rna-synthesis-with-hi-t7-rna-polymerase-neb-m0658>

STEPS MATERIALS

NAME	CATALOG #	VENDOR
Nuclease-free Water	E6317	New England Biolabs
NTPs		
Template DNA		
Hi-T7 RNA Polymerase 50 U/ml	M0658S	New England Biolabs
RNase Inhibitor		
10X Hi-T7 RNA Polymerase Reaction Buffer	M0658S	New England Biolabs

SAFETY WARNINGS

For safety information and warnings, please refer to the SDS (Safety Data Sheet).

Assemble the reaction

- 1 Thaw the necessary kit components, mix and pulse-spin in microfuge to collect solutions to the bottom of the tubes. Assemble the reaction at **Room temperature** in the following order.

The total reaction volume is **20 µl**.

- 2 Add Nuclease-free H₂O: X µl



Nuclease-free Water

by New England Biolabs

Catalog #: E6317

- 3 Add 10X Hi-T7 RNA Polymerase Reaction Buffer: **2 µl** **[M]1 X**



10X Hi-T7 RNA Polymerase Reaction Buffer

by New England Biolabs

Catalog #: M0658S



Hi-T7 RNA Polymerase Supplied with 10X Hi-T7 RNA Polymerase Reaction Buffer formulated for optimal performance.

4 Add NTPs: X μ l [M]0.5 Millimolar (mM) each



NTPs

5 Add Template DNA: X μ l from [M]0.2 μ g to [M]1 μ g



Template DNA

6 Add RNase Inhibitor: \square 0.5 μ l [M]1 U/ μ l final



RNase Inhibitor

7 Add Hi-T7 RNA Polymerase (50 U/ μ l): \square 2 μ l



Hi-T7 RNA Polymerase 50 U/ml

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Incubation

8 Incubate at \uparrow 50 °C for \odot 01:00:00 .

