

# Thermo T7 RNA Polymerase <<TT7>>

**Code:** TYB-TRL-201 (7500 units)

TYB-TRL-252 (50000 units)

TYB-TRL-201S (500 units)

**Storage:** Store at -20°C

**Components:**

- Thermo T7 RNA Polymerase
- 10× Reaction Buffer for Thermo T7 RNA Polymerase

**Concentration:** Thermo T7 RNA Polymerase          \* \*     units/ul

**Source:** *Escherichia coli* carrying the plasmid that encodes the gene of phage T7 RNA Polymerase

**Unit Definition:** One unit of enzyme is defined as the amount of enzyme that will incorporate 1 nmoles of labeled nucleotide into acid insoluble material in 1 hour at 37°C under standard assay conditions as described below.

**Assay Condition:** 40mM Tris-HCl (pH8.0), 50mM NaCl, 8mM MgCl<sub>2</sub>, 5mM DTT, 400uM rNTPs, 400uM [<sup>3</sup>H]-UTP (30cpm/pmoles), 20ug/ml T7 DNA, 50ug/ml BSA, 100ul reaction volume. 37°C, 10min.

**Storage Buffer:**

20	mM	Potassium phosphate (pH7.7)
100	mM	NaCl
5	mM	DTT
0.1	mM	EDTA
0.01	%	Triton X-100
50	%(v/v)	Glycerol

**10× Reaction Buffer:**

400	mM	Tris-HCl (pH8.0)
500	mM	NaCl
80	mM	MgCl <sub>2</sub>
50	mM	DTT

**Quality Control Assay:** This product has passed the following quality control assays:

1. SDS-polyacrylamide gel analysis for purity
2. Functional absence of exonuclease, endonuclease, and RNase
3. Performance in a transcription reaction at both 37°C and 50°C

**Application Examples:**

10× Reaction Buffer	5ul
ATP, CTP, GTP, UTP	each 0.4mM
RNase inhibitor	20 units
Template DNA	100~1000ng
Thermo T7 RNA Polymerase	25~100units
dH <sub>2</sub> O	/ total 50ul→incubate at 37~50°C for 30~60min

For research use only; not for use as a diagnostic.



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