

Thermo T7 RNA Polymerase << TT7 >>

Code No. TRL-2

Lot No. *****

Size 7,500units(201), 50,000 units(252)

Components : •Thermo T7 RNA Polymerase
•10x Reaction Buffer for Thermo T7 RNA Polymerase

Concentration : Thermo T7 RNA Polymerase *** units/ μ LSource : *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 nmole 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 MgCl₂, 5mM DTT, 400 μ M rNTPs, 400 μ M [³H]-UTP(30cpm/pmoles), 20 μ g/mL T7 DNA, 50 μ g/mL BSA, 50 μ L 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

10x Reaction Buffer : 400 mM Tris-HCl(pH8.0)
500 mM NaCl
80 mM MgCl₂
50 mM DTT

Quality Control Assays : 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 : 10x Reaction Buffer 5 μ L
ATP, CTP, GTP, UTP each 0.4mM
RNase inhibitor 20 units
Template DNA 100~1000ng
Thermo T7 RNA Polymerase 25~100units
dH₂O / total 50 μ L→incubate at 37~50°C for 30~60min

