Thermo T7 RNA Polymerase <<TT7>>

Code No. TRL−2

Lot No. ******

Storage Store at −20℃

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

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

Concentration : Thermo T7 RNA Polymerase ＊＊＊ units/μl

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 nmole of labeled nucleotide into acid insoluble material in 1 hour at 37℃ under standard assay conditions as described below.

Assay Condition : 40mM Tris−HCl(pH8.0), 50mM NaCl, 8mM $MgCl_2$, 5mM DTT, 400μM rNTPs, 400μM [^{3}H]−UTP(30cpm/pmoles), 20μg/ml T7 DNA, 50μg/ml BSA, 100μl reaction volume. 37℃, 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	$MgCl_2$
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℃ and 50℃

Application Examples :

10x Reaction Buffer	5μl
ATP, CTP, GTP, UTP	each 0.4mM
RNase inhibitor	20 units
Template DNA	100〜1000ng
Thermo T7 RNA Polymerase	25〜100units
dH_2O	/ total 50μl→incubate at 37〜50℃ for 30〜60min