SibEnzyme®

T7 RNA Polymerase

S **E355**
5,000 units
100,000 u/ml

Lot: 8
Exp: 07/19
Store at -20C

For more details scan the code

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CERTIFICATE OF ANALYSIS

Source:
An *E.coli* strain that carries the cloned phage T7 gene I.

Storage Conditions:
50 mM Tris-HCl (pH 7.5), 100 mM NaCl, 20 mM 2-mercaptoethanol, 1 mM EDTA,
50% glycerol, 0.1% Triton X-100.
Store at - 20° C.

1X SE-T7 RNA Polymerase Buffer:
50 mM Tris-HCl,(pH 7.5@ 25° C), 6 mM $MgCl_2$, 10 mM DTT, 2 mM spermidine.

Applications:
-radiolabeled RNA probe preparation;
-RNA generation for in vitro translation;
-RNA generation for studies of RNA structure, processing and catalysis.

Unit Definition:
One unit is defined as the amount of enzyme required to incorporate 1 nmol of dNTP into an acid-insoluble material for 1 hour at 37°C.

Quality Control Assays:
Nonspecific endonuclease assay:
No appearance of nicked DNA was detected after incubation of 1µg supercoiled pUC19 DNA with 100 units of enzyme for 4 hours at 37° C.
No alteration of the pattern of DNA bands was detected after incubation of 1µg λ/HindIII DNA fragments with 100 units of enzyme in 50 µl of reaction mixture for 16 hours at 37° C.

Oligonucleotide Assay:
No detectable degradation of a single-stranded and double-stranded deoxyribooligonucleotides was observed after incubation with 100 units of enzyme for 3 hours at 37° C.

Test for detection of RNase contaminants:
No fluorescence increasing was detected after incubation of 100 units of enzyme with 0.1 mM of fluorescent-labeled deoxyribooligonucleotide including ribonucleotide for 30 min at 37° C.
(B.R.Kelemen, T.A. Klink, M.A. Behlke, S.R.Eubanks, P.A. Leland, R.T. Raines.1999. *Nucleic Acids Res.*, 27, P. 3696-3701).

Reagents Supplied with Enzyme:
10X SE-T7 RNA Polymerase Buffer.