

Code; RP-T7RP-L (RP-T7RP-S x10)
Lot; RP-T7RP-xxxx
Size; 5,000 kunits



ProteinExpress

Recombinant T7 RNA polymerase, His-tagged

Concentration : 500,000 units/mL

Storage : Stored at -20°C. Avoid repeated freeze-thaw cycles.

Description : Bacteriophage T7 RNA polymerase (P00573) is DNA-dependent RNA polymerase that is specific for the T7 phage promoters.

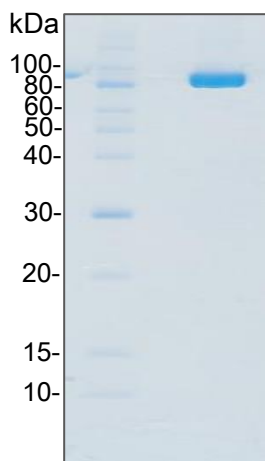
Storage Buffer :

20 mM Potassium Phosphate, pH 7.7
100 mM NaCl
0.1 mM EDTA
1 mM DTT
50% Glycerol

Source : Recombinant protein with His tag, expressed in *E. coli*.

Molecular Weight : 98KDa.

Purity : > 95%, as determined by SDS-PAGE visualized by CBB stain.



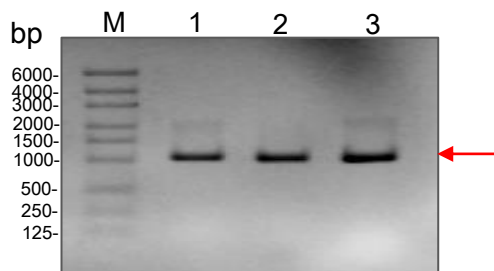
Unit Definition : One unit is defined as the amount of enzyme that will incorporate 1 nmol ATP into acid-insoluble material in a total reaction volume of 20 μ L in 1 hour at 37°C.

Reaction mixture for unit definition:

40 mM Tris-HCl, pH 8.0
6 mM MgCl₂
10 mM NaCl
2 mM spermidine
10 mM DTT
0.5 mM ATP, UTP, GTP and CTP (each)
1 μ g template DNA
(total volume is 20 μ L)

Reference:

- Proc Natl Acad Sci U S A. 1984 Apr;81(7):2035-9.
- Proc Natl Acad Sci U S A. 1985 Feb;82(4):1074-8.
- Nucleic Acids Res. 1985 Sep 11; 13(17): 6223-6236.
- Nucleic Acids Res. 1987 Nov 11;15(21):8783-98.
- J. Biol. Chem. 248, 2235-2244.
- Mol Ther. 2008 Nov;16(11):1833-40.



Example of RNA Synthesis using pseudouridine.

Reactions were performed in the presence of T7 RNA polymerase using a 1Kb DNA template.

Lane1; 1-Me-Pseudo-UTP
Lane2; Pseudo-UTP
Lane3; UTP

For Research Use Only. Not for use in diagnostic procedures

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