

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



ProteinExpress

Recombinant SP6 RNA polymerase, His-tagged

Concentration : 500,000 units/mL

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

Description : Bacteriophage SP6 RNA polymerase (P06221) is DNA-dependent RNA polymerase that is specific for the SP6 phage promoters.

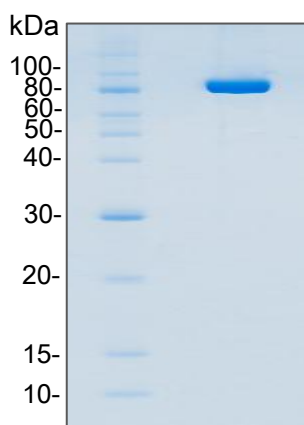
Storage Buffer :

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.



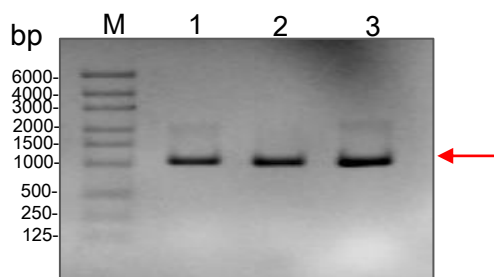
Unit Definition : One unit is defined as the amount of enzyme that will incorporate 1 nmol ATP into acid-insoluble material in a total reaction volume of 20µL in 1 hour at 37°C.

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 µg template DNA
(total volume is 20µL)

Reference:

- Proc Natl Acad Sci U S A. 1984 Apr;81(7):2035-9.
- Nucleic Acids Res. 1985 Sep 11; 13(17): 6223-6236.
- Nucleic Acids Res. 1984 Sep 25;12(18):7057-70.
- Nucleic Acids Res. 1987 Mar 25;15(6):2653-64.
- J Biol Chem. 1982 May 25;257(10):5772-8.
- Gene. 1996 Feb 2;168(1):37-41.



Example of RNA Synthesis using pseudouridine.

Reactions were performed in the presence of SP6 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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