



T7 RNA polymerase

Catalog Number: PLZ092

Gene Name	T7 RNA polymerase
Expression host	<i>E.coli</i>
Source	Escherichia phage T7 (Bacteriophage T7)
Tag	His tag
Molecular Weight	98.9 kDa
Enzyme Activity	20 U/μL
Purity	≥90 % by SDS-PAGE under reducing conditions
Storage Buffer	50 mM Tris-HCl, 1 mM EDTA, 10 mM DTT, 100 mM NaCl, 0.1% Triton X-100, 50% (v/v) glycerol, pH7.9@25°C
Unit Definition	Under conditions of 37°C and pH 8.0, the amount of enzyme required to incorporate 1 nmol of [³ H]GMP into acid-insoluble precipitate within 1 hour is defined as 1 unit of activity (U).
Shipping	The product is shipped with ice packs. Upon receipt, store it immediately at the temperature recommended below.
Storage	The product should be stored at -20°C . Avoid repeated freeze-thaw cycles

SDS-PAGE



Background

This product is a recombinant bacteriophage T7 RNA polymerase expressed in *E.coli*. It utilizes double-stranded DNA containing the T7 promoter sequence (5'-TAATACGACTCACTATAG*-3') as a template and NTPs as substrates to synthesize RNA complementary to the antisense strand downstream of the promoter. The enzyme can utilize both blunt-ended and 5'-overhang linear double-stranded DNA as templates, making linearized plasmids or PCR products suitable for in vitro RNA synthesis.

Note: The G* indicates the first base of the transcribed RNA.