

DATA SHEET

Version: 02
Revision date: 12/06/2023

1. Identification

Product name	T7 RNA Polymerase (50 U/ μ L) 5000 U
Cat. No	EZ0025

2. Description

T7 RNA Polymerase is a very active recombinant enzyme produced by a strain of *Escherichia coli*. The enzyme is a DNA dependent RNA polymerase from coliphage T7. It catalyzes the synthesis of RNA in the 5' \rightarrow 3' direction only in the presence of its cognate T7 phage promoter sequence.

This enzyme is compatible with the available co-transcriptional capping system

3. Protein information

Purity	>95% as determined by SDS-polyacrylamide gels with Coomassie® blue staining
Reaction Buffer	10X Reaction Buffer: 400 mM Tris-HCl, 60 mM MgCl ₂ , 10 mM DTT, 20 mM spermidine (pH 7.9 @ 25°C)
Storage Buffer	100 mM NaCl, 50 mM Tris-HCl (pH 7.9), 1 mM EDTA, 20 mM BME, 0.1 % Triton X-100, 50 % Glycerol
Biological activity	One unit is defined as the amount of enzyme required to generate 2 nmol RNA in 1 hour at 37°C determined by a fluorimetric method.

4. Storage specifications

Store at -20°C. Avoid exposure to constant temperature changes.

5. Applications

- Synthesis of mRNA, RNA standard template for RT-PCR, RNA probes for hybridization.
- Preparation of RNA vaccines.
- Studies of RNA secondary structure and RNA-protein interactions, RNA splicing.

6. Further information

Product Use Limitations	This product is developed, designed and sold exclusively only for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.
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