

# **T7 RNA Polymerase**

Catalog Number	LDG0010RI	
Package	25,000 U / 200,000 U / Customized package	

For full product information, images and publications, please visit our website.



## **Overview**

## **Description**

Bacteriophage T7 RNA Polymerase is a DNA-dependent RNA polymerase with high specificity for the T7 promoter. This enzyme catalyzes the  $5'\rightarrow 3'$  synthesis of RNA from DNA downstream from its promoter.

## Components

Package	Items	Quantity
25,000 U	T7 RNA Polymerase (200 U/μL)	1 vial (25,000 U)
	10× RNA Polymerase reaction buffer	1 vial (1 mL)
	100 mM DTT	1 vial (1 mL)

# **Specifications**

**Expression System** 

Escherichia coli

**Purity** 

>98% as determined by SDS-PAGE analysis.

**Storage Buffer** 

T7 RNA Polymerase is supplied in 100 mM Tris-HCl (pH 7.9), 20 mM KCl, 1 mM DTT, 1 mM EDTA, 0.1% Triton® X-100 and 50% (v/v) glycerol.

## **Unit Definition**

One unit is defined as the amount of the enzyme incorporates 1 nmol of ATP into acid-insoluble product in 1 hour at 37°C.

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#### **Reaction Condition**

1× RNA Polymerase Reaction Buffer, supplemented with 0.5 mM each ATP, UTP, GTP, CTP, and DNA template containing the T7 RNA Polymerase promoter. Incubate at 37°C.

10× RNA Polymerase Reaction Buffer: 400 mM Tris-HCI (pH 8.0), 60 mM MgCl<sub>2</sub>, and 20 mM spermidine.

## Instruction

#### Shipping

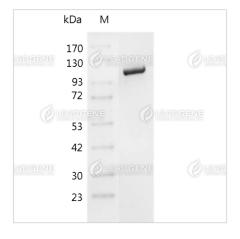
The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.

## Stability & Storage

This product is stable after storage at:

- -20°C or -80°C for 12 months under sterile conditions from date of receipt.
- For optimal storage, aliquot the enzyme, reaction buffer and DTT reagent into smaller quantities and store at recommended temperature.
- For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

# **Image**



SDS-PAGE analysis of recombinant T7 RNA Polymerase.



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