



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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## Thermostable T7 RNA Polymerase

Cat. No.:	HY-E70400	
Target:	DNA/RNA Synthesis	
Pathway:	Cell Cycle/DNA Damage	
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.	Thermostable T7 RNA Polymerase

### BIOLOGICAL ACTIVITY

#### Description

Thermostable T7 RNA Polymerase is a thermostable version of T7 RNA Polymerase (HY-E70090). Compared with T7 RNA Polymerase, it has high temperature resistance and stable activity. T7 RNA polymerase is a polymerase expressed by *Escherichia coli* from the RNA polymerase gene of T7 bacteriophage. T7 RNA polymerase is highly specific and involved in in vitro transcription (IVT) of mRNA. In the presence of  $Mg^{2+}$ , T7 RNA polymerase only uses the single-stranded or double-stranded DNA containing the T7 promoter sequence as a template, and uses NTP as a substrate to synthesize RNA complementary to the single-stranded DNA downstream of the promoter<sup>[1][2][3]</sup>.

### REFERENCES

- [1]. Kimoto M, et al. Genetic alphabet expansion transcription generating functional RNA molecules containing a five-letter alphabet including modified unnatural and natural base nucleotides by thermostable T7 RNA polymerase variants. *Chem Commun (Camb)*. 2017 Nov 14;53(91):12309-12312.
- [2]. Dousis A, et al. An engineered T7 RNA polymerase that produces mRNA free of immunostimulatory byproducts. *Nat Biotechnol*. 2023 Apr;41(4):560-568.
- [3]. Borkotoky S, et al. The highly efficient T7 RNA polymerase: A wonder macromolecule in biological realm. *Int J Biol Macromol*. 2018 Oct 15;118(Pt A):49-56.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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