

Certificate of analysis

Product Name/Description: T7 RNA Polymerase ver.2.0
Cat. #: 2541A
Lot #: Specified on product label
Storage Conditions: -20 degrees C
Expiration Date: Specified on product label or package

Package Size: 20000 U

Package Contents:	1. T7 RNA Polymerase ver.2.0	200 U/μl	20 KU
	2. 10X T7 RNA Polymerase Buffer	10X	1 ml

Source: Escherichia coli carrying a plasmid containing the gene for phage T7 RNA polymerase

Unit Definition: One unit is defined as the amount of enzyme that incorporates 1 nmol of [3H]GMP into the acid-insoluble fraction in 1 hour at 37°C.

Quality Control Data:

Nuclease contamination tests:

Nuclease activities were not obviously detected in any of the following tests by agarose-gel electrophoresis.

- 1) Incubating 1 μg of λ DNA-Hind III digest with 250 units of the enzyme for 16 hours at 37°C.
- 2) Incubating 1 μg of supercoiled pBR322 DNA with 250 units of the enzyme for 4 hours at 37°C.
- 3) Incubating 1 μg of 16S, 23S rRNA with 250 units of the enzyme for 4 hours at 37°C.

Protein purity:

The enzyme was detected as a main band of approximately 98.8 kDa protein in SDS-PAGE analysis.

Functional test:

In vitro transcription was performed in a 20 μl reaction using 200 units of the enzyme and its reaction buffer. It resulted in the production of a minimum of 65 μg RNA.

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department of Takara Bio Inc.

Notice To Purchaser:

Please refer to the website.

Product Documents, Patent Markings, Trademarks, & Safety Information:

Refer to website for availability to download or contact your local office:

www.takara-bio.co.jp (Japanese)

www.takarabio.com (English)

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