

# Certificate of analysis

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**Product Name/Description:** Vaccinia Capping Enzyme  
**Cat. #:** 2460A  
**Lot #:** Specified on product label  
**Storage Conditions:** -20 degrees C  
**Expiration Date:** Specified on product label or package

**Package Size:** 500 U

|                          |                               |         |        |
|--------------------------|-------------------------------|---------|--------|
| <b>Package Contents:</b> | 1. Vaccinia Capping Enzyme    | 10 U/μl | 500 U  |
|                          | 2. 10X Capping Buffer         |         | 100 μl |
|                          | 3. S-adenosylmethionine (SAM) | 32 mM   | 100 μl |
|                          | 4. GTP                        | 10 mM   | 50 μl  |

**Source:** Escherichia coli carrying plasmids containing the genes for vaccinia virus capping enzyme

**Unit Definition:** One unit is defined as the amount of enzyme that incorporates 10 pmol of [ $\alpha$ -<sup>32</sup>P]GTP into an RNA transcript 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 10 units of the enzyme for 4 hours at 37°C.
- 2) Incubating 1 μg of supercoiled pBR322 DNA with 10 units of the enzyme for 4 hours at 37°C.
- 3) Incubating 1 μg of 16S, 23S rRNA with 10 units of the enzyme for 4 hours at 37°C.

### Protein purity:

The heterodimer enzyme was detected as main bands of approximately 98 kDa and 33 kDa proteins in SDS-PAGE analysis.

### Functional test of S-adenosylmethionine (SAM):

No obvious digestion or difference (comparing to previous lot) of the 1 μg of λ DNA that had been pretreated with 160 μM of SAM and 2 units of CpG Methylase was observed after incubation with 10 units of Acc II restriction enzyme in agarose-gel electrophoresis.

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](http://www.takara-bio.co.jp) (Japanese)

[www.takarabio.com](http://www.takarabio.com) (English)

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