



## Product Sheet

# Quantitative Synthetic Dengue virus type 4 RNA (ATCC® VR-3231SD™)

### Please read this FIRST

Storage Temp.  
-70°C or colder

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Biosafety Level  
1

### Intended Use

This product is intended for research and diagnostic use only. It is not intended for any animal or human therapeutic use.

The synthetically engineered sequence of the product constitutes intellectual property belonging to ATCC. Unauthorized use, including sequencing, modification, or reverse-engineering, of the product is expressly prohibited without prior ATCC consent.



### Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: Quantitative Synthetic Dengue virus type 4 RNA (ATCC® VR-3231SD™)

### Nucleic Acid Information

Specification range:  $1 \times 10^5$  -  $1 \times 10^6$  copies/ $\mu$ L  
100  $\mu$ L per vial with Biomatrixa RNastable

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor

### Description

**Source:** Quantitative Synthetic Dengue virus type 4 RNA

**Description:** ATCC® Genuine Nucleics can be used for assay development, verification, validation, monitoring of day to day test variation, and lot to lot performance of molecular-based assays. The quantitative format allows for the generation of a standard curve for quantitative PCR (qPCR) to determine viral load. Preparation includes fragments from the capsid, membrane, and envelope regions.

**Note:** RNA is easily degraded. Take extra precautions against contamination by using new gloves and clean lab coats when working with RNA. Use only RNase-free lab materials when handling this product.

Vortexing can damage the synthetic RNA. Gentle pipetting is highly recommended.

Aliquoting is highly recommended to avoid multiple freeze-thaws, which can damage the synthetic RNA.

### Batch-Specific Information

Refer to the Certificate of Analysis for batch-specific test results.

### Preparation Procedure

1. Thaw the vial at room temperature and immediately place on ice. Avoid exposing the synthetic RNA to repeated freeze-thaw cycles as it may result in degradation of the RNA and variation in copy number.
2. Gently mix the sample to ensure an even distribution of material.
3. Briefly centrifuge the tube before opening to ensure all liquid is at the bottom.

### Quality Control Information

Manufactured under ISO 13485 guidance.

### Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

### ATCC Warranty

ATCC® products are warranted for 30 days from the date of shipment, and this warranty is valid only if the product is stored and handled according to the information included on this product information sheet. If the ATCC® product is a living cell or microorganism, ATCC lists the media formulation that has been found to be effective for this product. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this product. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

### Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans. While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of materials on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of such materials.

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Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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