



# Quantitative Synthetic DNA from Human papillomavirus 31

VR-3256SD™

## Description

Quantitative synthetic Human papillomavirus 31 DNA can be used for assay development, verification, and validation as well as 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. This preparation includes a full-length genome of human papillomavirus type 31 (HPV-31) derived from a plasmid clone (ATCC 65446).

**Organism:** Human papillomavirus 31, HPV-31

**Genetic target:** Preparation includes full length genome of human papillomavirus type 31 (HPV-31) derived from a plasmid clone (ATCC 65446).

**Specification range:**  $\geq 1 \times 10^5$  to  $1 \times 10^6$  copies/ $\mu$ L

**Volume:** 100  $\mu$ L

### Shipping information:

Shipped in a proprietary stabilization matrix

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## Storage Conditions

**Product format:** Frozen

**Storage conditions:** -20°C or colder

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## Intended Use

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

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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.

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## BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

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## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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## Handling Procedures

1. Thaw the vial at room temperature and immediately place on ice. Avoid exposing the synthetic DNA to repeated freeze-thaw cycles as it may result in degradation of the DNA 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.
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## Notes

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Aliquoting is highly recommended to avoid multiple freeze-thaws.

The following primers and probe can be use with this nucleic acid preparation [Ref](#) Moberg M, Gustavsson I, Gyllensten U. Real-time PCR-based system for simultaneous quantification of human papillomavirus types associated with high risk of cervical cancer. J Clin Microbiol 41(7): 3221-3228, 2003. :

Forward primer: ACGATTCCACAACATAGGAGG

Reverse primer: TACACTTGGGTTTCAGTACGAGG

Probe: FAM-CTCCAACATGCTATGCAACGTCC-BHQ

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Quantitative Synthetic DNA from Human papillomavirus 31 (ATCC VR-3256SD)

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## References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium

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## Disclaimers

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Please see the material transfer agreement (MTA) for further details regarding the

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use of this product. The MTA is available at [www.atcc.org](http://www.atcc.org).

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