



# Dengue virus type 1

VR-1856™

## Description

Dengue virus type 1 strain Hawaii is propagated in Vero cells (ATCC CCL-81). This strain was isolated in 1944 from the pooled serum of 6 pediatric patients in Hawaii and was deposited by Children's Mercy Hospital. It has applications in vector-borne disease research.

**Strain designation:** Hawaii

**Deposited As:** Dengue virus type 1

**Serotype:** type 1

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## Storage Conditions

**Product format:** Frozen

**Storage conditions:** -70°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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## BSL 2

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.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

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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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## Growth Conditions

**Host:** Vero (ATCC CCL-81)

**Effects:** cell rounding; cell sloughing; CPE

**Complete medium:**

EMEM (ATCC 30-2003) + 2% FBS (ATCC 30-2020)

**Temperature:** 33°C

**Atmosphere:** 95% Air, 5% CO<sub>2</sub>

**Recommendations for infection:** Plate cells 18-24 hours prior to infection and infect when cultures are 80-90% confluent. Remove medium and inoculate with a small volume of virus (e.g., 1 mL per 25 cm<sup>2</sup>) diluted to provide an optimal MOI (e.g., 0.02). Adsorb 1-2 hours at 33°C in a humidified 5% CO<sub>2</sub> atmosphere. End adsorption by adding virus growth medium.

**Incubation:** 7-15 days at 33°C in a humidified 5% CO<sub>2</sub> atmosphere, until CPE is

progressed through 80% of the monolayer.

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## Notes

Derived by adaptation of mouse-prepared product ATCC VR-1254 to Vero cells (ATCC CCL-81). ATCC VR-1254 and ATCC VR-1856 have not been compared for sequence or infectivity in tissue culture and *in vivo*.

**Key Abbreviations:** °C, Degrees Celsius; CO<sub>2</sub>, Carbon dioxide; EMEM, Eagle's Minimum Essential Medium; FBS, Fetal bovine serum; MOI, Multiplicity of infection

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Dengue virus type 1 (ATCC VR-1856)

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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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