**Dengue Virus Type 4, H241 (Tissue Culture Adapted)**

**Catalog No. NR-86**  
(Derived from ATCC® VR-1490™)

**For research use only. Not for use in humans.**

**Contributor:**  
ATCC®

**Manufacturer:**  
BEI Resources

**Product Description:**

**Virus Classification:** Flaviviridae, Flavivirus  
**Species:** Dengue Virus  
**Strain/Isolate:** H241 (tissue culture adapted)  
**Original Source:** Derived from existing strain. The original H241 strain was isolated in 1956 from the serum of a patient in the Philippine Islands.¹

**Comments:** Dengue Virus Type 4 (DEN-4). H241 was deposited at ATCC® by Dr. W. Brandt and was used to prepare ATCC® VR-217™ in suckling mouse. VR-1490™ was derived through tissue culture adaptation of ATCC® VR-217™. The complete genome of DEN-4, H241 has been sequenced (GenBank: AY947539).²

Dengue virus causes the most common vector-borne viral disease of humans, with over 50 million cases in tropical and subtropical regions each year.³ The disease is now endemic in over 110 countries in the world, with Southeast Asia and the Western Pacific being the most seriously affected. Dengue disease is caused by one of four closely related, but antigenically distinct, serotypes (designated DEN-1 to -4).³ Infections produce a spectrum of clinical illness ranging from a nonspecific viral syndrome to severe and fatal hemorrhagic disease.⁴,⁵ Humans are the major host of dengue virus, with *Aedes aegypti* mosquitoes the principal vectors.

**Material Provided:**

Each vial contains approximately 1 mL of cell lysate and supernatant from *Macaca mulatta* kidney epithelial cells (LLC-MK2 derivative; ATCC® CCL-7.1™) infected with DEN-4, H241.

**Note:** If homogeneity is required for your intended use, please purify prior to initiating work.

**Packaging/Storage:**

NR-86 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

**Growth Conditions:**

**Host:** LLC-MK2 derivative cells; ATCC® CCL-7.1™

**Growth Medium:** Eagle’s Minimum Essential Medium containing Earle’s Balanced Salt Solution, non-essential amino acids, 2 mM L-glutamine, 1 mM sodium pyruvate and 1500 mg per L of sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent

**Infection:** Cells should be 70% to 100% confluent

**Incubation:** 7 to 9 days at 37°C and 5% CO₂

**Cytopathic Effect:** Cell rounding and degeneration

**Citation:**

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Dengue Virus Type 4, H241 (Tissue Culture Adapted), NR-86.”

**Biosafety Level:** 2


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References:

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