



TECH DATA SHEET

REPORTER VIRUS PARTICLES

DESCRIPTION

Product	RVP-301L, Dengue-3 (DENV3) Reporter Virus Particles (RVPs)
Lot	DL-286C
Strain	16562
Reporter	<i>Renilla</i> luciferase
Size	1.0 mL/vial
Packaging	20% FBS/DMEM
Recommended Input	1.56 μ L per well (96-well plate) for a S:B $\geq$ 200*
Mycoplasma Test	Negative
Expiration Date	December 2026

SAFETY & HANDLING

Shipping	Shipped on dry ice
Stability and Storage	Store at $\leq -80^{\circ}\text{C}$

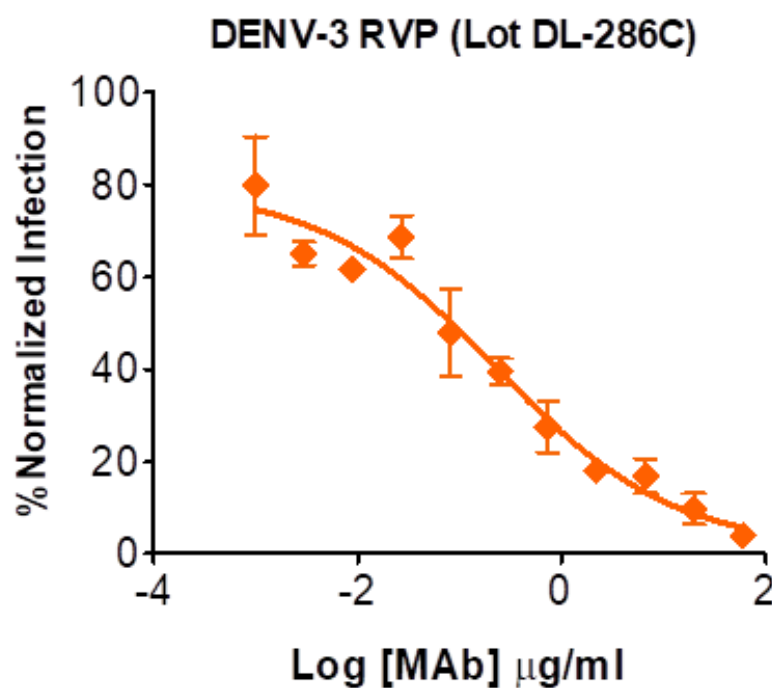
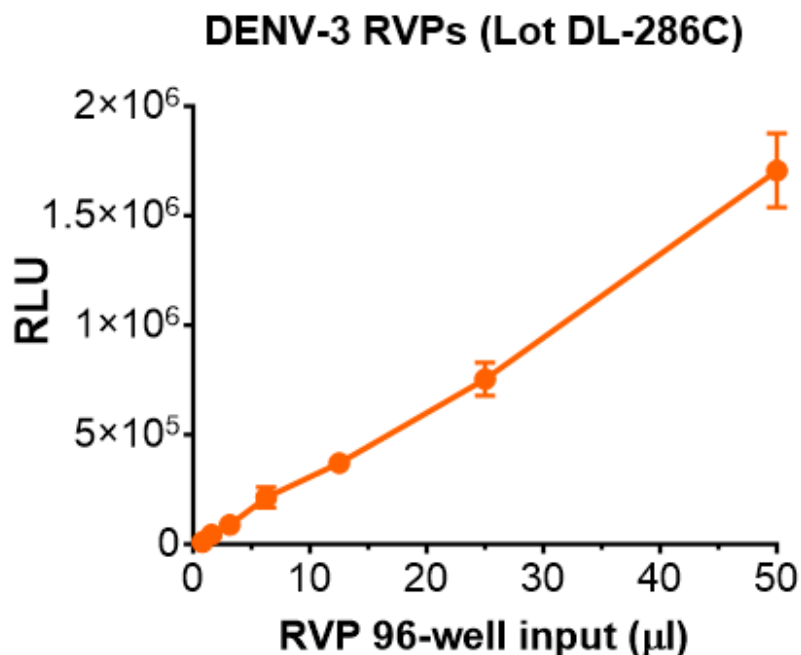
* Determined in the BHK DC-SIGN stable cell line. Signal-to-background values can vary depending on instrument make, model, and/or calibration.

DENV RVPs are used to test the ability of serum, antibodies, and drugs to neutralize infectivity. DENV RVPs are structurally intact Dengue virus-like particles, capable of a single round of infection and carry a genome that expresses a luciferase optical reporter gene upon infection. RVPs are derived from a baby hamster kidney cell line (BHK-21) and are produced using DENV CprME structural genes and a Flavivirus reporter replicon.

RVPs are designed to have structural and antigenic equivalence to live viruses and are highly unlikely to recombine to produce a fully infectious virus. However, RVPs are derived from biological materials and should be handled with caution within a BSL2 laboratory environment. RVPs are not to be used in humans or in animals raised for food.

Thaw tubes in a 37°C water bath for 3 minutes and place on ice until ready to use. RVPs will appear as a translucent solution. Gently mix prior to use and pulse tube for 3 seconds at high speed in a tabletop microfuge to recover all volume from the tube. Vortexing of RVPs should be avoided. Re-freezing of RVPs is not recommended.

INFECTIVITY AND NEUTRALIZATION DATA



Infectivity determined in BHK DC-SIGN cells (Cat# C-BD101).

Neutralization (using monoclonal antibody 4G2) utilized 5 μl of DENV RVPs in a 96-well plate. *Renilla* luciferase activity measured using the Promega *Renilla* luciferase assay system (Promega #E2810). Sample luminescence was read using a Perkin-Elmer Envision plate reader.

SIGNAL TO BACKGROUND	
RVP 96-well Input (µl)	Signal:Background
50	32807
25	14491
12.5	7136
6.25	4104
3.13	1702
1.56	848
0.78	182

Signal to background is calculated using mock infected cells as the negative control value.