



TECH DATA SHEET

REPORTER VIRUS PARTICLES

DESCRIPTION

Product	RVP-401L, Dengue-4 (DENV4) Reporter Virus Particles (RVPs)
Lot	DL-301B
Strain	TVP360 with S1036 ectodomain
Reporter	<i>Renilla</i> luciferase
Size	1.0 mL/vial
Packaging	20% FBS/DMEM
Mycoplasma Test	Negative
Expiration Date	January 2026

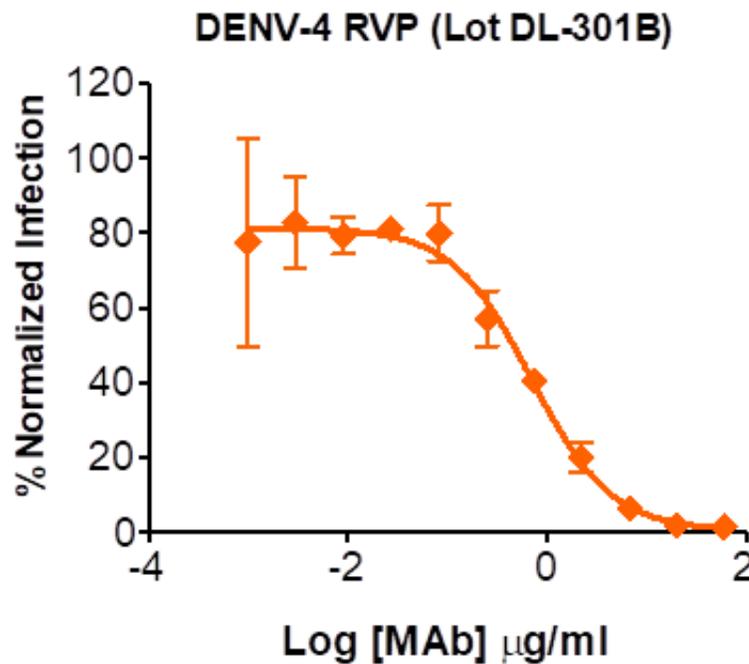
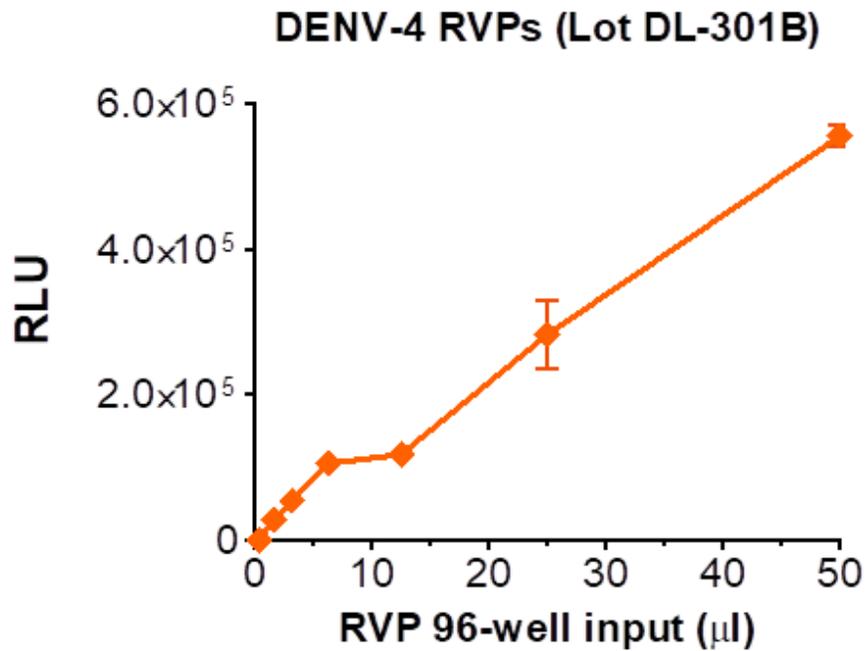
SAFETY & HANDLING

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

DENV RVPs are structurally intact Dengue virions capable of a single round of 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 virus but lack replication capabilities. Nevertheless, RVPs are derived from biological materials and should be handled with caution within a BSL2 laboratory environment. DENV RVPs are not to be used in food animals or humans. RVPs are for research only and should not be used for diagnostic purposes.

Thaw and dilute RVPs immediately prior to use. 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, pink 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 & 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 AND Z-PRIME

RVP 96-well Input (μl)	Signal:Background	Z-Prime (0.5-1.0 ideal)
50	34332	0.92
25	17488	0.49
12.5	7306	0.88
6.25	6517	0.68
3.125	3333	0.86
1.5625	1762	0.88

Signal to background is calculated using mock infected cells as the negative control value. Data are based on replicates of two wells. Devices used to read luminescence will vary in relative light unit values based on their individual detectors and software, but the signal to background will be comparable across devices.