



# TECH DATA SHEET

## REPORTER VIRUS PARTICLES

### DESCRIPTION

|                          |                                                            |
|--------------------------|------------------------------------------------------------|
| <b>Product</b>           | RVP-301L, Dengue-3 (DENV3) Reporter Virus Particles (RVPs) |
| <b>Lot</b>               | DL-286B                                                    |
| <b>Strain</b>            | 16562                                                      |
| <b>Reporter</b>          | <i>Renilla</i> luciferase                                  |
| <b>Size</b>              | 1.0 mL/vial                                                |
| <b>Packaging</b>         | 20% FBS/DMEM                                               |
| <b>Recommended Input</b> | 1 $\mu$ L per well (96-well plate) for a S:B > 200*        |
| <b>Mycoplasma Test</b>   | Negative                                                   |
| <b>Expiration Date</b>   | December 2026                                              |

### SAFETY & HANDLING

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

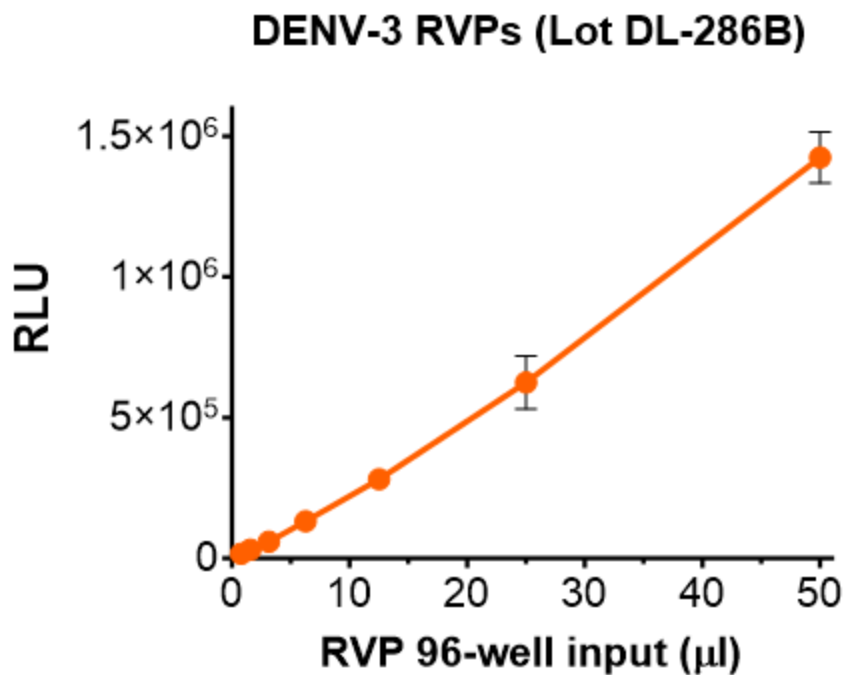
\* Determined in the BHK DC-SIGN stable cell line. Signal-to-background values can vary depending on instrument make, model, and/or calibration.

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 DATA



Infectivity determined in BHK DC-SIGN cells (Cat# C-BD101). *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 ( $\mu\text{l}$ ) | Signal:Background |
|-------------------------------------|-------------------|
| 50                                  | 26391             |
| 25                                  | 11587             |
| 12.5                                | 5215              |
| 6.3                                 | 2445              |
| 3.1                                 | 1087              |
| 1.56                                | 568               |
| 0.78                                | 307               |

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