



TECH DATA SHEET

REPORTER VIRUS PARTICLES

DESCRIPTION

Product	RVP-1121L, Western Equine Encephalitis Reporter Virus Particles (RVPs)
Lot	TOL-881.6A
Strain	BFS1703
Reporter	<i>Renilla</i> Luciferase
Size	1.0 mL/vial
Packaging	20% FBS/DMEM
Recommended Input	1.25 μ L per well (96-well plate) for a S:B $\geq$ 200*
Mycoplasma Test	Negative
Expiration Date	June 2027

SAFETY & HANDLING

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

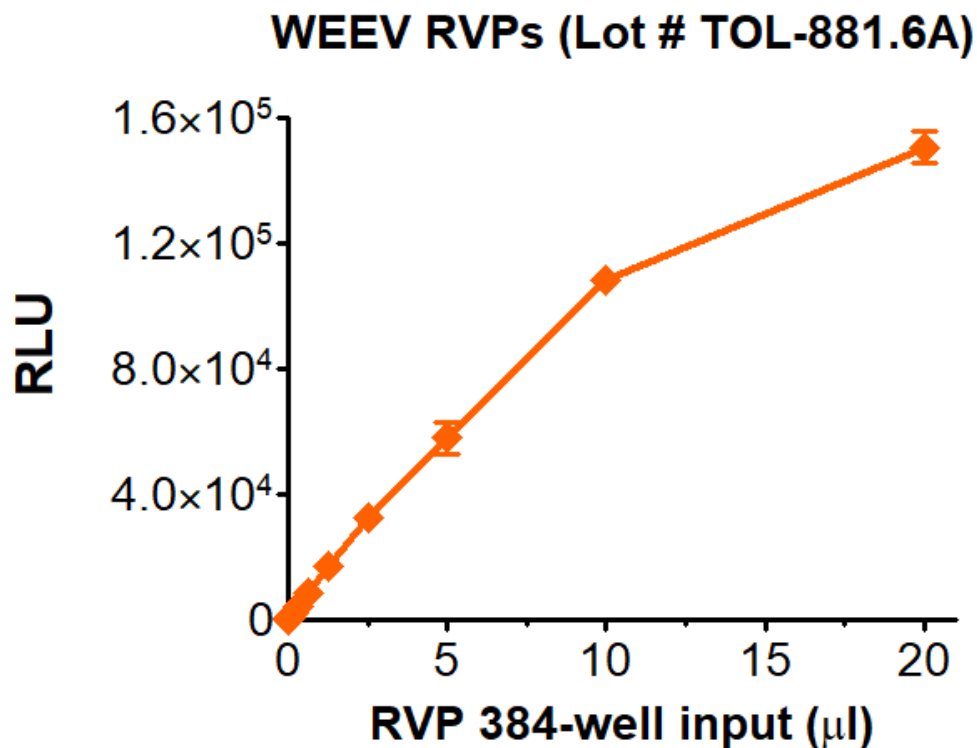
* Determined in the HEK-293T cell line. Signal-to-background values can vary depending on instrument make, model, and/or calibration.

Western Equine Encephalitis (WEEV) RVPs are used to test the ability of serum, antibodies, and drugs to neutralize the infectivity of the Western Equine Encephalitis virus. RVPs display antigenically correct spike protein pseudotyped on replication-incompetent virus particles that contain a heterologous lentiviral (HIV) core. RVPs are capable of a single round of infection and carry a genome that expresses either a GFP or luciferase optical reporter gene upon infection. RVPs are produced in HEK-293T cells using three separate plasmids, encoding the spike protein, a lentiviral gag polyprotein, and a reporter gene.

RVPs are created using a second-generation lentiviral system with components that are highly unlikely to recombine to produce a fully infectious virus (requiring 3 separate recombination events to do so). However, lentiviruses are capable of genomic integration and RVPs are derived from biological materials so should be handled with caution within a BSL2 or enhanced 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 HEK-293T cells. Infectivity data represents the average of three independent vials, each tested in quadruplicate.

Renilla luciferase activity measured using the Promega *Renilla*-Glo luciferase assay system (Promega #E2710). Sample luminescence was read using a Perkin-Elmer Envision plate reader.

SIGNAL TO BACKGROUND	
RVP 384-well Input (μl)	Signal: Background
20	9,292
10	6,688
5	3,575
2.5	1,995
1.25	1,053
0.63	531
0.31	264

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