TECH DATA SHEET

REPORTER VIRUS PARTICLES

DESCRIPTION	
Product	RVP-1401G, Zaire ebolavirus Reporter Virus Particles (RVPs)
Lot	FG-639B
Strain	Mayinga/76
Reporter	GFP
Size	1.0 mL/vial
Packaging	20% FBS/DMEM
Viral Titer	9.50 x 10^5 TU/mL†
Recommended Input	10µL per well (96-well plate) for ~20% infectivity in a flow assay*
Mycoplasma Test	Negative
Expiration Date	March 2026

SAFETY & HANDLING	
Shipping	Shipped on dry ice
Stability and Storage	Store at ≤ -80°C upon receipt

* Determined in the Huh-7 cell line

Ebola RVPs are used to test the ability of serum, antibodies, and drugs to neutralize infectivity. RVPs display antigenically correct glycoprotein 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 envelope glycoprotein, 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 vials in a 37°C water bath for 2-3 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.

† Titer is calculated using the estimated number of cells during the time of infection, using the following equation:

$$\left[\left(\frac{\%\ GFP\ positive\ cells}{100}\right) \times \left(\frac{9{,}000\ \ cells}{1\ well}\right) \times \left(\frac{1\ well}{RVP\ input\ (\mu l)}\right)\right] \times \frac{1000\ \mu l}{1\ mL} = X\ \frac{Transforming\ Units\ (TU)}{mL}$$

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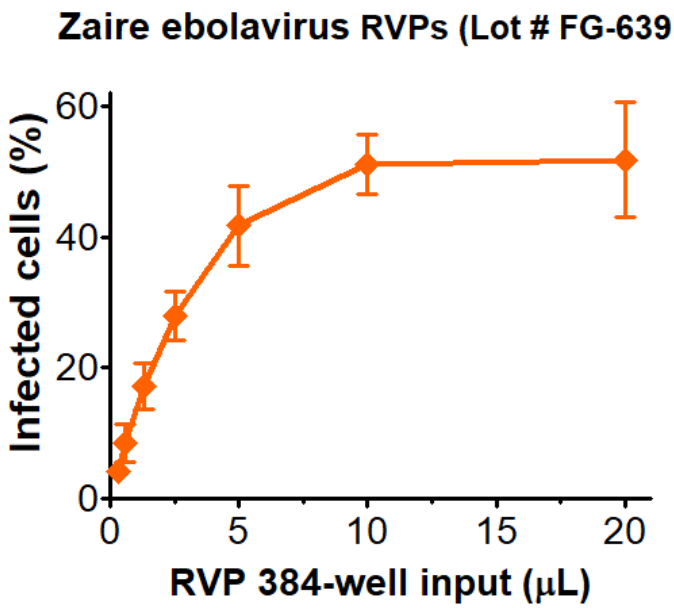
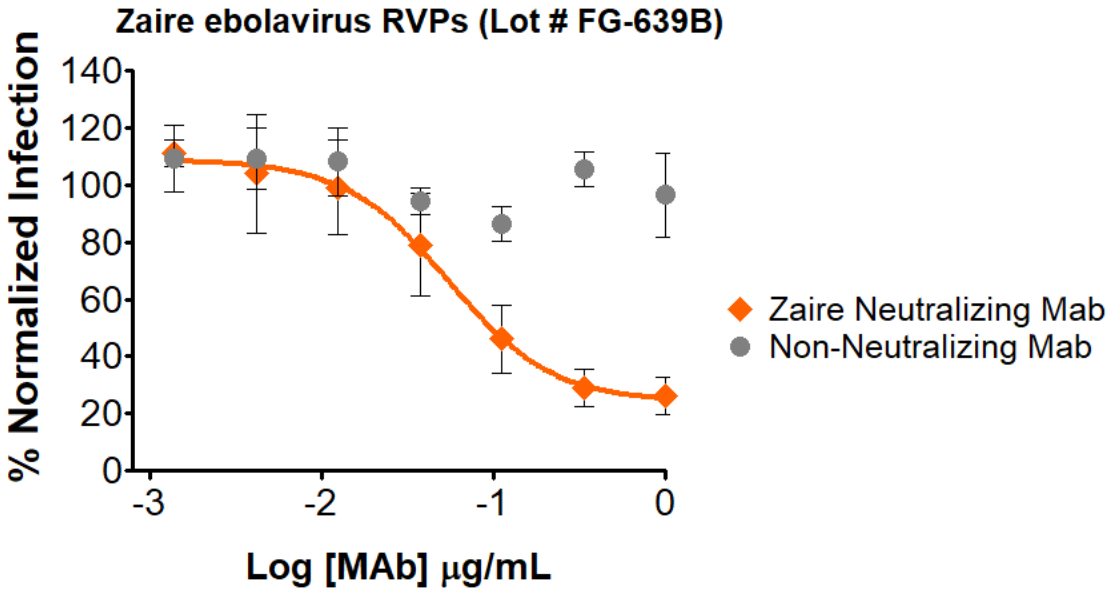
INFECTIVITY & NEUTRALIZATION DATA





Infectivity and neutralization determined in Huh-7 cells. Infectivity data represents the average of three independent vials, each tested in quadruplicate.

Neutralization utilized 10µL of Ebola RVPs in a 384-well plate. GFP positive cells were detected with an Intellicyt iQue flow cytometer using the BL-1 channel (Ex. 488 nm, Em. 530).