

DESCRIPTION

Product	RVP-1402G, Zaire ebolavirus (EBOV) Reporter Virus Particles (RVPs)
Lot	FG-1177B
Strain	Mayinga/76
Reporter	GFP
Size	1.0 mL/vial
Packaging	20% FBS/DMEM
Viral Titer	7.94×10^6 TU/mL [†]
Recommended Starting Input	1 μ L per well (96-well plate) for $\geq 20\%$ infectivity in a flow assay*
Mycoplasma Test	Negative
Manufacture Date	August 2026
Expiration Date	August 2028

SAFETY & HANDLING

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

EBOV RVPs are used to test the ability of serum, antibodies, and drugs to neutralize EBOV infectivity. RVPs display antigenically correct glycoprotein pseudotyped on replication-incompetent virus particles that contain a heterologous VSV core. RVPs are capable of a single round of infection and carry a genome that expresses a *Renilla* luciferase reporter gene upon infection. RVPs are produced in HEK-293T cells using plasmids encoding the glycoproteins.

EBOV RVPs are derived from recombinant vesicular stomatitis virus (VSV) from which the VSV glycoprotein gene has been deleted and replaced with a reporter gene (VSV Δ G). RVPs are derived from biological materials and 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.

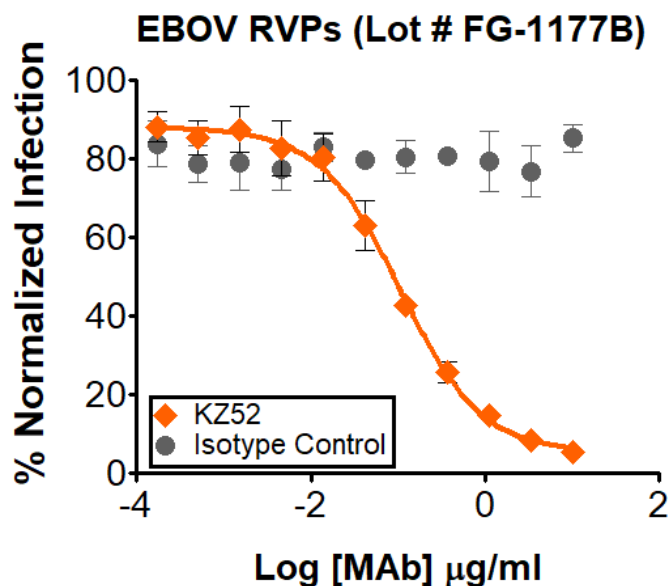
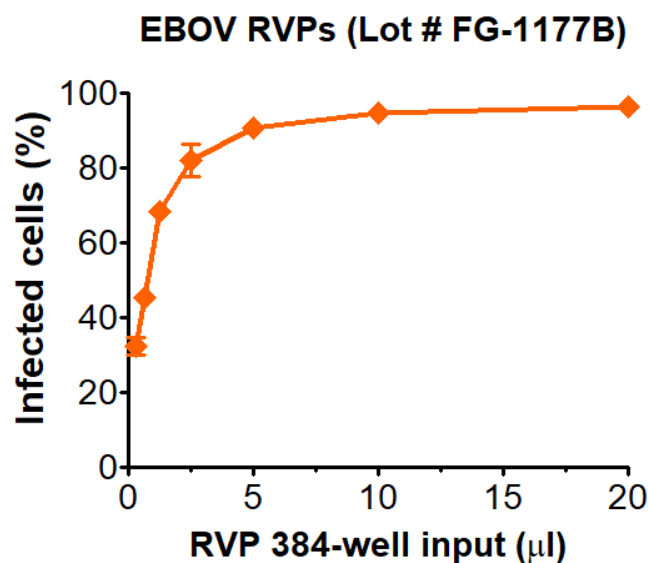
Thaw tubes in a 37°C water bath for 3 minutes and place on ice until ready to use. RVPs will appear as a translucent, pink solution. Gently mix prior to use and pulse tube for 3 seconds at high speed in a tabletop microfuge to recover all volume from the tube. Vortexing of RVPs should be avoided. Re-freezing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

[†] Titer is calculated using the estimated number of cells at the end of the experiment, using the following equation:

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

* Determined using the Vero cell line. Input should be optimized based on specific assay conditions and experimental needs.

INFECTIVITY & NEUTRALIZATION DATA



Infectivity and neutralization determined in Vero cells. Infectivity data represent the average of three independent vials, with each vial tested in technical quadruplicate.

Neutralization utilized 5 μL of EBOV 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).

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