

DESCRIPTION

Product	RVP-1304G, Influenza B Reporter Virus Particles (RVPs)
Lot	IBG-1201A
Lineage	Victoria
Strain	Pennsylvania/14/2025
Reporter	GFP
Size	1.0 mL/vial
Packaging	20% FBS/DMEM
Viral Titer	7.46×10^5 TU/mL [†]
Recommended Starting Input	5 μ L per well (96-well plate) for $\geq 20\%$ infectivity in a flow assay*
Mycoplasma Test	Negative
Manufacture Date	July 2026
Expiration Date	July 2029

SAFETY & HANDLING

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

Influenza B RVPs are used to test the ability of serum, antibodies, and drugs to neutralize Influenza B infectivity. RVPs display antigenically correct HA and NA 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.

Influenza B RVPs are produced in HEK-293T cells using four separate plasmids, encoding the HA protein, NA 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.

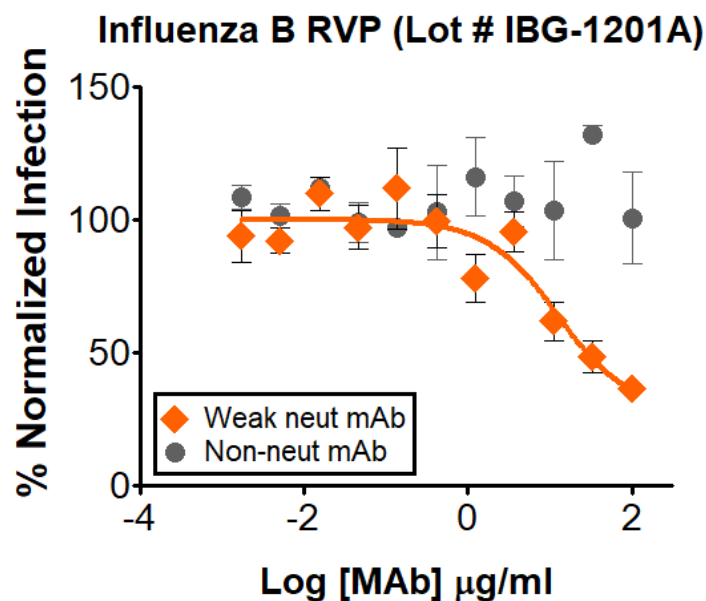
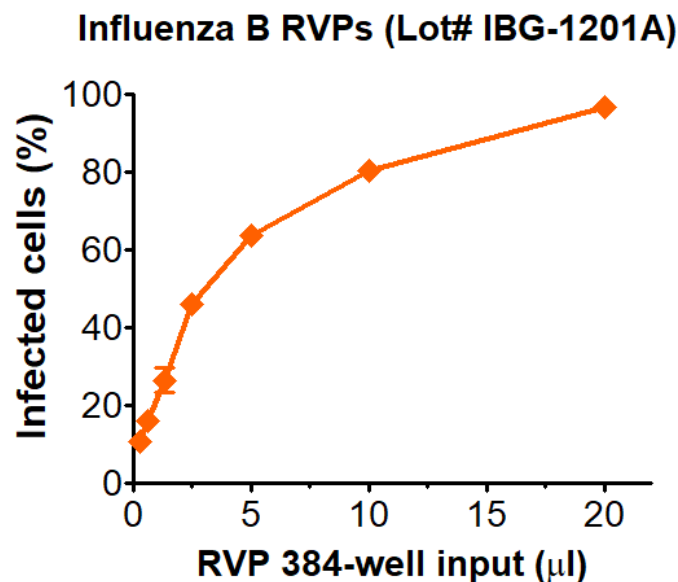
Thaw tubes in a 37°C water bath for 3 minutes and place on ice until ready to use. RVPs will appear as a translucent, pink solution. Gently mix prior to use and pulse tube for 3 seconds at high speed in a tabletop microfuge to recover all volume from the tube. Vortexing of RVPs should be avoided. Re-freezing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

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

$$\left[\left(\frac{\% \text{ GFP positive cells}}{100} \right) \times \left(\frac{6,000 \text{ cells}}{1 \text{ well}} \right) \times \left(\frac{1 \text{ well}}{\text{RVP input } (\mu\text{L})} \right) \right] \times \frac{1000 \mu\text{L}}{1 \text{ mL}} = X \frac{\text{Transforming Units (TU)}}{\text{mL}}$$

* Determined in the MDCK-SIAT1 cell line. Input should be optimized based on specific assay conditions and experimental needs.

INFECTIVITY AND NEUTRALIZATION DATA



Infectivity and neutralization determined in MDCK-SIAT1 cells. Infectivity data represents the average of three independent vials, each tested in technical quadruplicate.

Neutralization utilized 5 μL of Influenza B 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).

Christina Go, PhD

Senior Application Scientist, Virology

cgo@integralmolecular.com

Integral Molecular

One uCity Square

25 N. 38th Street, Suite 800

Philadelphia, PA 19104

Jennifer Kilgore

Senior Project Manager/Quality Assurance, Virology

jkilgore@integralmolecular.com

Integral Molecular

One uCity Square

25 N. 38th Street, Suite 800

Philadelphia, PA 19104