CERTIFICATE OF ANALYSIS

REPORTER VIRUS PARTICLES

DESCRIPTION

Product	RVP-1304L, Influenza B Reporter Virus Particles (RVPs)
Lot	IBL-1199A
Lineage	Victoria
Strain	Pennsylvania/14/2025
Reporter	*Renilla* Luciferase
Size	1.0 mL/vial
Packaging	10% FBS/DMEM/10 mM HEPES
Recommended Starting Input	1 µL per well (96-well plate) for a S:B ≥ 200*
Mycoplasma Test	Negative
Manufacture Date	August 2026
Expiration Date	August 2029

SAFETY & HANDLING

Shipping	Shipped on dry ice
Stability and Storage	Store at ≤ -80°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 proteins 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, the 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.

* Determined using the MDCK-SIAT1 cell line. Input should be optimized based on specific assay conditions and experimental needs. Signal-to-background values may vary depending on instrument make, model, and/or calibration.

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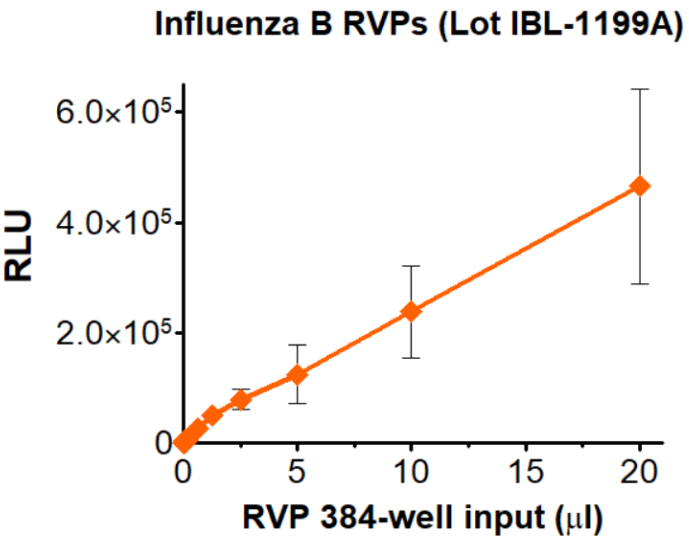
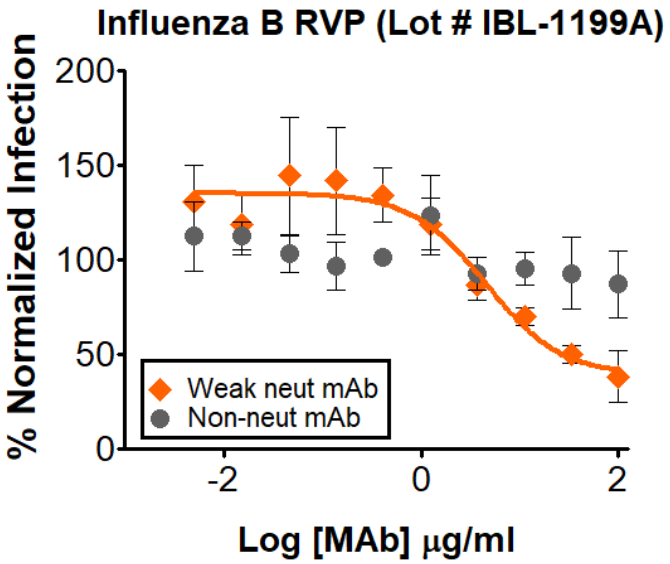
INFECTIVITY AND NEUTRALIZATION DATA





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.

Renilla luciferase activity measured using the Promega *Renilla* luciferase assay system (Promega #E2710). Sample luminescence was read using a PerkinElmer EnVision plate reader.

SIGNAL TO BACKGROUND	
RVP 384-well Input (µL)	**Signal: Background**
20	31,303
10	16,023
5	8,357
2.5	5,314
1.25	3,420
0.63	1,694
0.31	943

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

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