CERTIFICATE OF ANALYSIS

REPORTER VIRUS PARTICLES

DESCRIPTION

Product	RVP-1229G, Influenza A Reporter Virus Particles (RVPs)
Lot	IAG-1105A
Subtype	H3N2
Strain	Darwin/1415/2025
Reporter	GFP
Size	1.0 mL/vial
Packaging	10% FBS/DMEM/10 mM HEPES
Viral Titer	1.47 x 10^6 TU/mL†
Recommended Starting Input	5 µL per well (96-well plate) for ≥ 20% infectivity in a flow assay*
Mycoplasma Test	Negative
Manufacture Date	June 2026
Expiration Date	June 2029

SAFETY & HANDLING

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

Influenza A RVPs are used to test the ability of serum, antibodies, and drugs to neutralize Influenza A 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 A 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:

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

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

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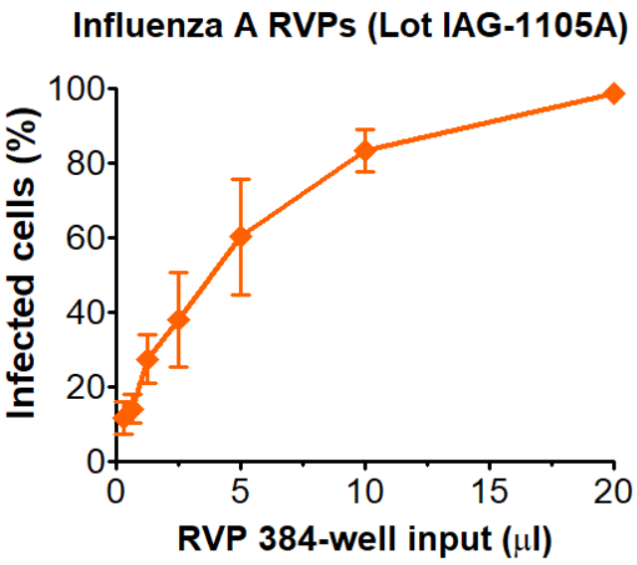
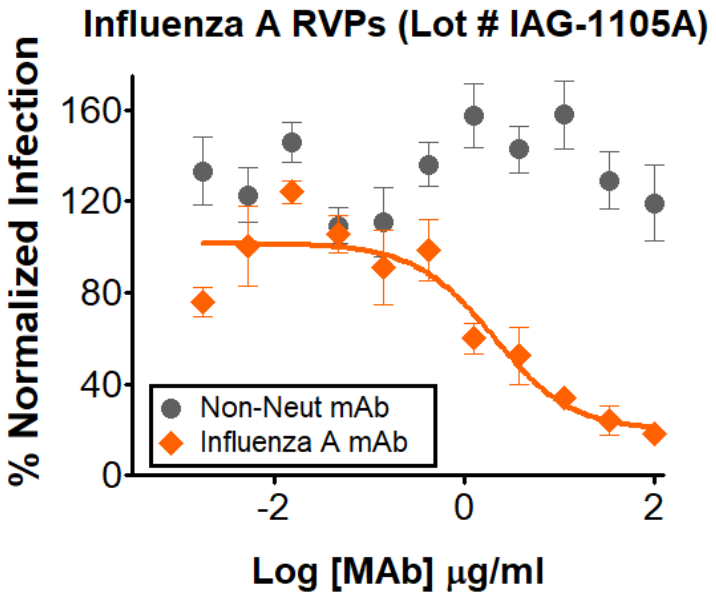
INFECTIVITY AND NEUTRALIZATION DATA





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 A 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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