TECH DATA SHEET

REPORTER VIRUS PARTICLES

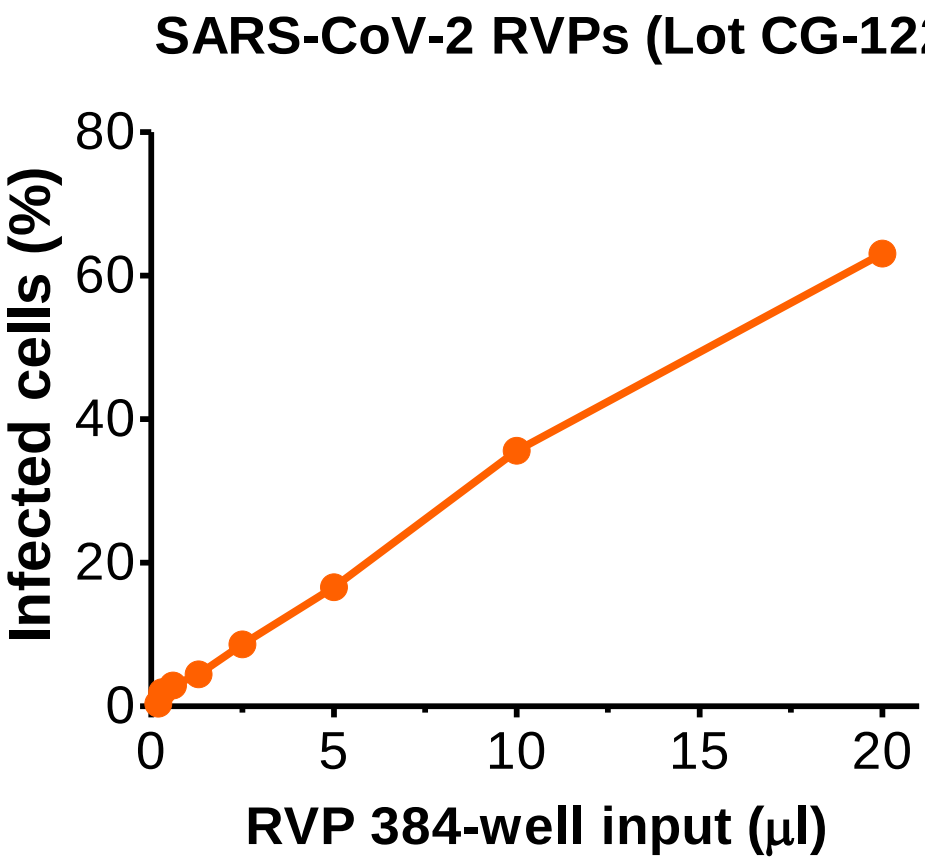
DESCRIPTION	
Product	RVP-701G, SARS-CoV-2 Reporter Virus Particles (RVPs)
Lot	CG-122B
Strain	Wuhan-Hu-1
Reporter	GFP
Size	1.0 mL/vial
Packaging	20% FBS/DMEM
Viral Titer	9.5 x 10^5 TU/ml
Recommended Input	20uL per well (96-well plate) using the 293T-ACE2 stable cell line
Mycoplasma Test	Negative
Expiration Date	July 2024

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

SARS-CoV-2 RVPs are used to test the ability of serum, antibodies, and drugs to neutralize the infectivity of SARS-CoV-2 spike protein. RVPs display antigenically correct spike protein 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 spike 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. Excessive vortexing of RVPs should be avoided. Re-freezing of RVPs is not recommended.

NEUTRALIZATION & INFECTIVITY DATA



Infectivity determined in HEK-293T cells stably over-expressing ACE2 (Integral Cat# C-HA102).

Neutralization utilized 5 µl of SARS-CoV-2 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).