TECH DATA SHEET

REPORTER VIRUS PARTICLES

DESCRIPTION

Product	RVP-703L, SARS-CoV-2 Reporter Virus Particles (RVPs)
Lot	CL-145A
Strain	Wuhan-Hu-1 (N439K)
Reporter	*Renilla* Luciferase
Size	1.0 ml/vial
Packaging	20% FBS/DMEM
Recommended Input	10 ul per well (96-well plate) using the 293T-ACE2 stable cell line
Mycoplasma Test	Negative
Expiration Date	January 2025

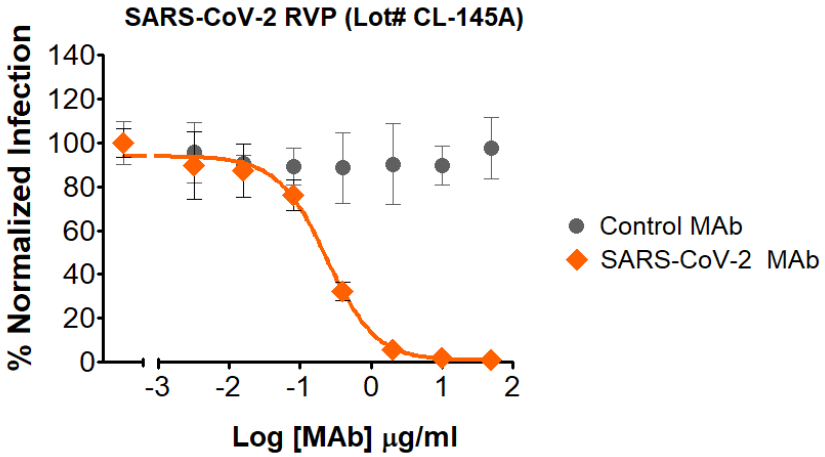
SAFETY & HANDLING

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. Excessive vortexing of RVPs should be avoided. Re-freezing of RVPs is not recommended.

NEUTRALIZATION DATA



Infectivity determined in monoclonal ACE2 cell line (Cat# C-HA102) using 2.5 µl of SARS-CoV-2 RVPs in a 384-well plate. *Renilla* luciferase activity measured using the Promega *Renilla*-Glo luciferase assay system (Promega #E2710). Sample luminescence was read using a Perkin-Elmer Envision plate reader.