



TECH DATA SHEET

REPORTER VIRUS PARTICLES

DESCRIPTION

Product	RVP-901G, MERS Reporter Virus Particles (RVPs)
Lot	MG-283A
Strain	HCoV-EMC
Reporter	GFP
Size	1.0 ml/vial
Packaging	20% FBS/DMEM
Viral Titer	3.28×10^6 TU/ml
Recommended Input	10uL per well (96-well plate) for ~20% infectivity in a flow assay*
Mycoplasma Test	Negative
Expiration Date	October 2025

SAFETY & HANDLING

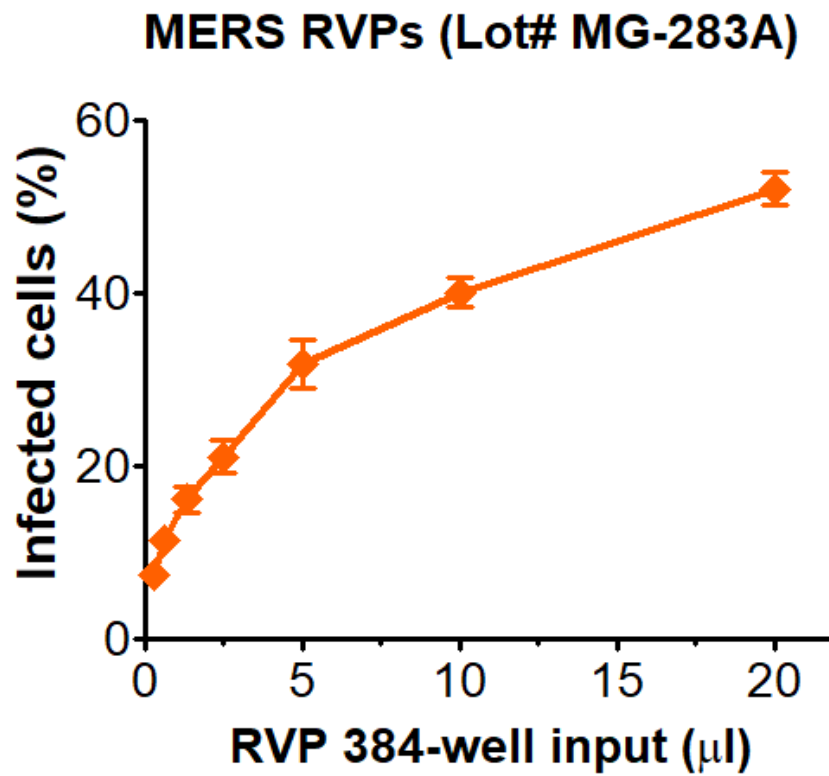
Shipping	Shipped on dry ice
Stability and Storage	Store at $\leq -80^\circ\text{C}$

* Determined in the Huh7 cell line

MERS RVPs are used to test the ability of serum, antibodies, and drugs to neutralize infectivity. 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.

INFECTIVITY DATA



Infectivity determined in Huh7 cells. GFP positive cells were detected with an Intellicyt iQue flow cytometer using the BL-1 channel (Ex. 488 nm, Em. 530).