

SARS-1 Coronavirus Pseudoviral Particles

Cat. No. SARS-1-06PsV **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Our SARS-1 Pseudoviral Particles are replication-deficient MLV pseudotyped with the SARS-1 spike protein (Genbank Accession # AY278487). They also contain the ORF for firefly luciferase as a reporter. They establish a pseudovirus entry assay for SARS-1 as the spike protein mediated cell entry can be conveniently measured via the luciferase reporter activity. This pseudovirus assay isolates the SARS-1 viral entry from other steps of the viral infection cycle.

Species SARS-1

Usage

Note: requires a luciferase assay reagent.

Cell Infection:

1. Count Vero E6 cells or HEK293-ACE2 cells to be infected and seed ~20K cells per well into appropriate 96-well plates (50 μ L per well) DMEM with 10% Serum (no antibiotics) or 5K cells per well into appropriate 384-well plates (15 μ L per well).
2. Culture cells overnight to make sure the cells stably adhere to the plates.
3. On the 2nd day, remove media, add 50 μ L SARS-1 pseudoviral particles* into each well (12.5 μ L for 384-well plate). Spin at 700 rpm for 15 min at 4 centigrade.

*Note: thaw the pseudoviral particles quickly in the room temperature water (< 30 minutes, do not shake) and use right away. Discard the unused portion (do not re-freeze or leave it on ice for later use).

4. Incubate for 2 hrs at 37 centigrade.
5. Add 50 μ L DMEM with 10% FC into each well (12.5 μ L for 384-well plates).
6. Incubate for 48 hrs at 37 centigrade.

Measurement of Luciferase Activity in Infected Cells

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	1. Do not remove medium. Add 100 µL luciferase assay WORKING SOLUTION (25 µL for 384-well plate) directly into each well. 2. Read in a luminescence plate reader and record the data.
Applications	Our Pseudovirus Particles generate robust chemiluminescent signals in cell assays when coupled with our firefly luciferase assay kit, useful for: 1) screening potential inhibitor to block SARS-1 entry and viral protein translation; 2) measuring the activity of and screening for neutralizing antibody against SARS-1.
Shelf Life	Six months from the date of shipping when stored at -70 centigrade.
Features	Robust: Excellent signal to noise (basal) ratio Easy to use: Amenable to HTS format (96-well, 384-well and 1536-well format)
Storage	At -70 centigrade.
Shipping	Shipped on dry ice.
Pseudoviral Particle (PP) Infection Assays	SARS-1 pseudoviral particles with HEK293 cells, or HEK293-ACE2 cells, or Vero-E6 cells in 96-well format.
Illustration of the replication-deficient MLV particle pseudotyped with SARS-1 Spike protein	