

Influenza A H5N1 (A/Texas/37/2024) Pseudoviral Particles, Lentivirus-based

Cat. No. IAV-04PsV **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Our Influenza A H5N1 Pseudoviral Particles are replication-deficient Lentivirus pseudotyped with the H5 and N proteins of the influenza A virus (A/Texas/37/2024/H5N1) strain. They also contain the ORF for firefly luciferase (FLuc) as a reporter. Upon the Pseudoviral Particles (PP) infecting of the cells, the reporters will be expressed in the transduced cells. By measuring the FLuc activity in the cells, the infectivity of the PP can be determined.

Gene/Protein Sources:

HA (A/Texas/37/2024/H5N1) (GenBank accession#: PP577943.1)

NA (A/Texas/37/2024/H5N1) (GenBank accession#: PP577945)

Species

IAV

Usage

Note: requires a luciferase assay reagent.

Cell Infection:

1. In each well of 96-well plate, add 50 μ L of influenza A H5N1 Pseudoviral Particles (12.5 μ L for 384-well plate); add 50 μ L of HEK293 cells (5×10^5 cells/mL) in DMEM (with 10% FBS and 20 μ g/mL Polybrene) (12.5 μ L for 384-well plates).

2. Incubate for 48 hrs at 37 centigrade.

Measurement of Luciferase Activity in Infected cells

1. Do not remove supernatant. Add 100 μ L luciferase assay WORKING SOLUTION (25 μ L for 384-well plates).

2. Read in a luminescence plate reader and record the data.

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Applications	Our Pseudovirus Particles (PP) generate robust chemiluminescent signals in cell assays when coupled with our firefly luciferase assay kit, useful for: 1) screening potential inhibitor to block influenza A entry and viral protein translation; 2) titrating neutralizing antibody against influenza A H5N1.
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) Specific: only measures the pseudovirus entry into host cells
Storage	At -70 centigrade.
Shipping	Shipped on dry ice.
Pseudoviral Particle (PP) Infection Assays	Pseudoviral particles on HEK293 cells in 384-well format.
Illustration of the replication-deficient Lentivirus particle pseudotyped with H5N1proteins	