

Hantavirus Pseudoviral Particles – Andes Orthohantavirus

CATALOG NUMBER: PsLv-ANDV-01

Description

Hantavirus entry is mediated by its surface glycoprotein (GP), which binds to host cell receptors and drives membrane fusion.

eEnzyme's PsLv-ANDV-01 pseudoviral particles are replication-deficient lentiviruses pseudotyped with the GP from Andes orthohantavirus (ANDV), using the curated sequence GenBank/UniProt accession: Q9E006.1.

These particles encode firefly luciferase (FLuc), enabling quantitative measurement of viral entry through luminescence – isolating the GP-mediated entry step from the rest of the viral life cycle.

This pseudovirus system is ideal for mechanistic studies of ANDV entry, neutralization assays, and high-throughput screening of antiviral compounds.

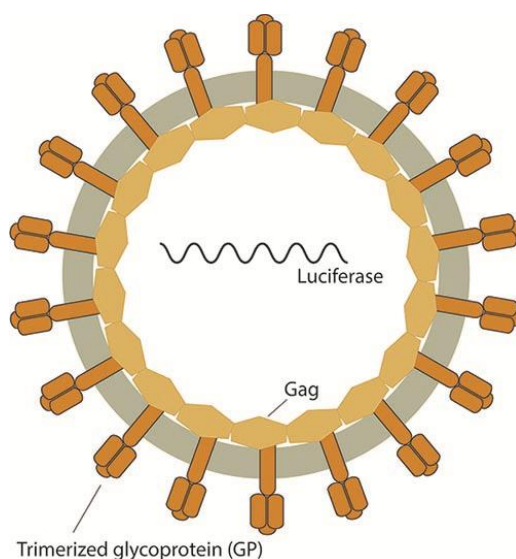


Figure 1. Illustration of the replication-deficient lentivirus pseudotyped with Ebola glycoproteins

Applications

Optimized for use with eEnzyme's Firefly Luciferase Assay Kit (Catalog # CA-L165), these pseudoviruses are ideal for:

- Screening inhibitors of ANDV entry and GP-mediated fusion
- Evaluating neutralizing antibodies against ANDV
- High-throughput infection assays in 96-, 384-, and 1536-well formats

Key Features

- **Robust Signal:** High signal-to-noise ratio for sensitive detection
- **HTS-Compatible:** Validated for multi-well formats
- **Convenient Format:** Ready-to-use for luciferase-based entry assays

Product Contents

- Volume: 1 mL or 5 mL per vial
- Format: Lentivirus-based pseudoviral particles
- Titer: $>1.0 \times 10^7$ particles/mL



Storage & Stability:

- Store immediately at -70°C upon receipt
- Thaw rapidly at room temperature (<30 min, no shaking); use immediately
- Do not aliquot or refreeze
- Shelf life: 6 months from shipping date when stored at -70°C

Assay Protocol**Cell Infection**

1. Seed HEK293 cells:
 - 96-well: 20K cells/well in 50 μ L DMEM + 10% HyClone™ FetalClone™ II Serum (no antibiotics)
 - 384-well: 5K cells/well in 15 μ L
2. Incubate overnight for adherence
3. Replace media and add pseudoviral particles:
 - 96-well: 50 μ L/well
 - 384-well: 12.5 μ L/well
 - Centrifuge at 700 rpm for 15 min at 4°C
4. Incubate for 2 hrs at 37°C
5. Add fresh DMEM + 10% serum (same volume as above)
6. Incubate for 48-72 hrs at 37°C

Luciferase Readout

1. Without removing supernatant, add luciferase assay working solution:
 - 96-well: 100 μ L/well
 - 384-well: 25 μ L/well
 - Use eEnzyme's Firefly Luciferase Assay Kit (Catalog # CA-L165)
2. Measure luminescence using a microplate reader (e.g., BioTek Synergy 2, gain 255)

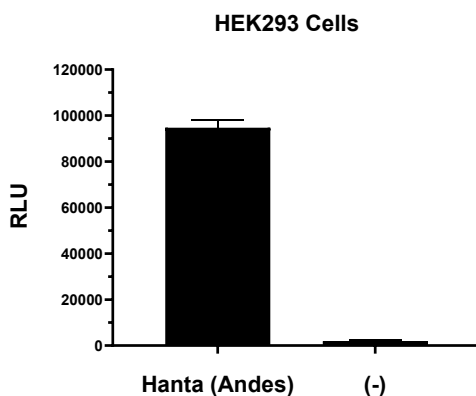
Representative Data

Figure 2: Assay: HEK293 cells infected with PsLv-ANDV-01 pseudovirus

Readout: Relative Luminescence Units (RLU)

EbolaGP-Bd2026: ANDV GP pseudovirus (PsLv-ANDV-01)

(-): Negative control using lentivirus without envelope protein

