



# SZABO SCANDIC

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## Produktinformation



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Diagnostik & molekulare Diagnostik



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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## SARS-CoV-2 Pseudoviral Particles, Delta Variant (Indian B.1.617.2)

CATALOG NUMBER: SCV2-PsV-Delta, 2x 5 mL

### Description

It has been known that SARS coronavirus 2 (SARS-CoV-2) uses human ACE2 as entry receptor and human proteases as entry activators. The virus surface spike protein (S) mediates SARS-CoV-2 entry into cells. To fulfill its function, SARS-CoV-2 spike binds to its human ACE2 (hACE2) receptor through its receptor-binding domain (RBD) and is proteolytically activated by human proteases.

Our **SARS-CoV-2-Delta Pseudoviral Particles** are replication-deficient MLV pseudotyped with the SARS-CoV-2 spike protein of the Delta variant, originally known as Indian variant B.1.617.2, VUI-21APR-02, 20A/S:478K (GISAID accession # EPI\_ISL\_2709817). They also contain the ORF for firefly luciferase as a reporter. They establish a pseudovirus cell entry assay mediated by the SARS-CoV-2 spike protein that can be conveniently measured via luciferase reporter activity. This pseudovirus assay isolates the SARS-CoV-2 viral entry from other steps of the viral infection cycle.

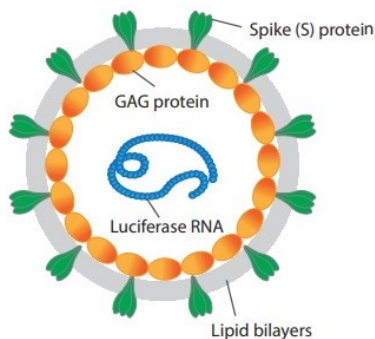


Figure 1. Illustration of the replication-deficient MLV particle pseudotyped with SARS-CoV-2 Spike protein

### Applications

Our Pseudovirus Particles generate robust chemiluminescent signals in cell assays when coupled with our firefly luciferase assay kit (Catalog # [CA-L165](#)), useful for 1) screening potential inhibitor to block SARS-CoV-2 entry and viral protein translation; 2) measuring the activity of and screening for neutralizing antibody against SARS-CoV-2-Delta (refer to [the Neutralization Assay Application Note](#)).

### Features

- **Robust:** Excellent signal to noise (basal) ratio
- **Easy to use:** Amenable to HTS format (96-well, 384-well and 1536-well format)

### Contents

10 ml (2 tubes, 5 mL/tube), for 2 multi-well plates

### Storage

Upon receiving this item, store at -70 °C right away. Thaw each vial immediately before use (**Do not aliquot and refreeze**).

### Shelf Life:

Six months from the date of shipping when stored at -70 °C



## ASSAY PROTOCOL

**Note:** requires a luciferase assay reagent (Catalog # [CA-L165](#)).

### Cell Infection:

1. Count HEK293-ACE2 cells (Catalog # [CL-hACE2-001](#)) to be infected and seed ~20K cells per well into 96-well plates (50 µl per well) DMEM with 10% HyClone™ FetalClone™ II Serum (no antibiotics) or 5K cells per well into 384-well plates (15 µl per well).
2. Culture cells overnight to make sure the cells stably adhere to the plates.
3. On the 2<sup>nd</sup> day, remove media, add 50 µl SARS-CoV-2-Delta Pseudoviral Particles into each well (12.5 µl for 384-well plate). Spin at 700 rpm for 15 min at 4°C.

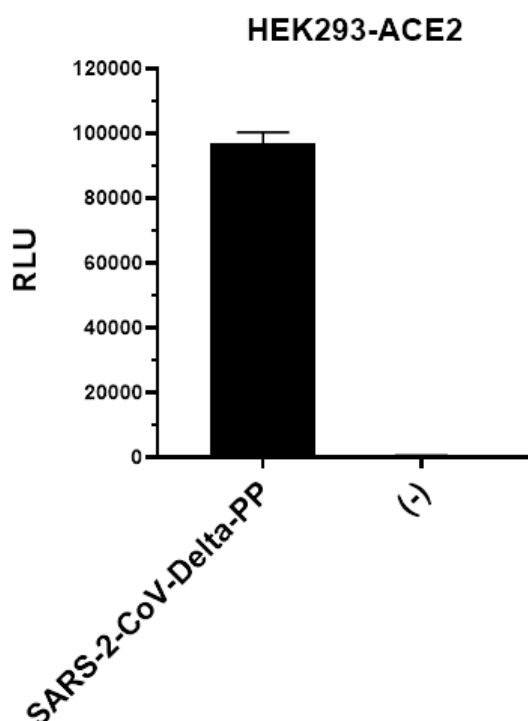
**Note:** thaw the pseudoviral particles immediately before use (take about 1 hour to thaw on ice) and use it within 2 hours. Discard the unused portion (not to re-freeze it for future use).

4. Incubate for 2 hrs at 37 °C.
5. Add 50 µl DMEM with 10% FC into each well (12.5 µl for 384-well plates).
6. Incubate for 42 hrs at 37 °C.

### Measurement of Luciferase Activity in Infected cells

1. Remove supernatant.
2. Add 100 µl eEnzyme's luciferase assay reagent (20 µl for 384-well plates).
3. Read in a luminescence plate reader and record the data.

### Data Analysis



**Figure 2. Pseudoviral Particle (PP) Infection Assays**

(SARS-CoV-2-Delta variant pseudoviral particles on HEK293-ACE2 cells in 384-well format)

#### Legends:

**SARS-2-CoV-Delta-PP:** SARS-CoV-2 Delta B.1.617.2 variant MLV Pseudovirus Particles (SCV2-PsV-Delta)

**(-):** MLV control (w/o envelope spike protein) (Catalog # [PsV-001](#))

