

## COVID 19 Pseudoviral Particles, KP.2 Variant Coronavirus Pseudovirus | COVID-19 pseudovirus

SARS-CoV-2 Pseudoviral Particles, KP.2 Variant

CATALOG #

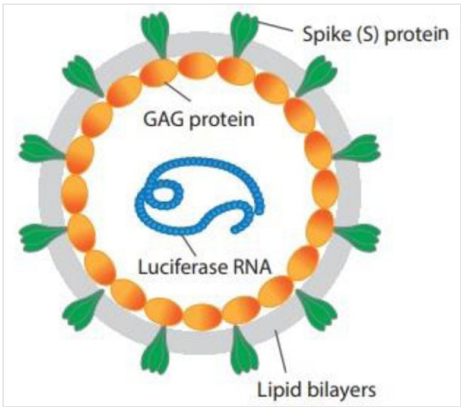
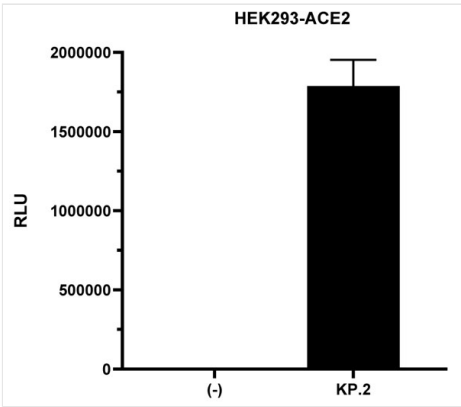
AAA62272

### PRODUCT SYNONYMS

COVID 19 Pseudoviral Particles; KP.2 Variant Coronavirus; SARS-CoV-2 Pseudoviral Particles; KP.2 Variant; 2019 Novel Coronavirus; Coronavirus; CoV; COVID-19 virus; HCoV-2; Human Coronavirus 2019; SARS2; SARS-CoV-2; Severe acute respiratory syndrome coronavirus 2; COVID-19 pseudovirus

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Features                | <ul style="list-style-type: none"><li>• Robust: Excellent signal to noise (basal) ratio</li><li>• Easy to use: Amenable to HTS format (96-well, 384-well and 1536-well format)</li></ul>                                                                                                                             |
| Contents                | 5 ml, for one multi-well plates; PP per mL > 1.0E+07                                                                                                                                                                                                                                                                 |
| Dry Ice Note            | The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.                                                                                                                                                                                                                   |
| Preparation and Storage | <p>Storage:</p> <p>Upon receiving it, store at -70 degree C right away. Thaw* before immediate use.</p> <p>*Note: read the instruction for thawing in the following protocol carefully. Do not aliquot and refreeze.</p> <p>Shelf Life:</p> <p>Six months from the date of shipping when stored at -70 degree C.</p> |



**Application Data**  
Illustration of the replication-deficient MLV particle pseudotyped with SARS-CoV-2 Spike protein

**Assay Procedure**  
Note: requires a luciferase assay reagent .Cell Infection:1. Count HEK293-ACE2 cells to be infected and seed ~20K cells per well into 96-well plates (50 ul per well) DMEM with 10% HyClone™ FetalClone™ II Serum (no antibiotics) or 5K cells per well into 384-well plates (15 ul 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 ul SARS-CoV-2 KP.2 Pseudoviral Particles\* into each well (12.5 ul for 384-well plate). Spin at 700 rpm for 15 min at 4 degree C.\*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 degree C.5. Add 50 ul DMEM with 10% FC into each well (12.5 ul for 384-well plates).6. Incubate for 42 hrs at 37 degree C.Measurement of Luciferase Activity in Infected cells1. Do not remove supernatant. Add 100 ul eEnzyme's luciferase assay WORKING SOLUTION (25 ul for 384-well plates). Refer to the protocol of "Firefly Luciferase Assay Kit" (Cat.# Read in a luminescence plate reader and record the data.Data AnalysisFigure 2. Pseudoviral Particle (PP) Infection Assays (SARS-CoV-2 KP.2 subtype pseudoviral particles on HEK293-ACE2 cells) (Luminescence plate reader: BioTek Synergy 2, gain 220)Legends:(-):MLV control (w/o envelope spike protein)KP.2:SARS-CoV-2 KP.2 variant MLV pseudovirus particles (SCV2-PsV-KP2

**Application Data**  
Illustration of the replication-deficient MLV particle pseudotyped with SARS-CoV-2 Spike protein

ADDITIONAL INFORMATION

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for COVID-19 pseudovirus</b> | <b>Description:</b><br>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.<br>Our SARS-CoV-2 KP.2 Pseudoviral Particles are replication-deficient MLV pseudotyped with the SARS-CoV-2 spike protein of the KP.2 variant (EPI_ISL_19016977.1). 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. |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.