COVID 19 Pseudoviral Particles, Omicron XBB.1.16 Subtype Coronavirus Pseudovirus | COVID-19 pseudovirus

SARS-CoV-2 Pseudoviral Particles, Omicron XBB.1.16 Subtype

CATALOG #
AAA62256

PRODUCT SYNONYMS

COVID 19 Pseudoviral Particles; Omicron XBB.1.16 Subtype Coronavirus; SARS-CoV-2 Pseudoviral Particles; Omicron XBB.1.16 Subtype; 2019 Novel Coronavirus; Coronavirus; CoV; COVID-19 virus; HCoV-2; Human Coronavirus 2019; SARS2; SARS-CoV-2; Severe acute respiratory syndrome coronavirus 2; Pseudoviral Particles; COVID-19 pseudovirus

PRODUCT SPECIFICATIONS

Form/Format	5 ml, for one multi-well plates; PP per mL > 1.0E+07
Features	Robust: Excellent signal to noise (basal) ratio Easy to use: Amenable to HTS format (96-well, 384-well and 1536-well format)
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	Upon receiving it, store at -70°C right away. Thaw* before immediate use. *Note: read the instruction for thawing in the following protocol carefully. Do not aliquot and refreeze. Shelf Life: Six months from the date of shipping when stored at -70°C Shipping: Ships on Dry Ice.

IMAGES

Application Data
Antibody Neutralization Assay with SARS-CoV-2-614G Pseudoviral ParticlesASSAY PROTOCOLNote: require a firefly luciferase assay kit .This is for the 384-well plate. Use 4x of the volumes for the 96-well plate.Cell Infection:1. Count HEK293-ACE2 cells to be infected and seed ~7.5K cells per well into 384-well plates (15 ul per well) in DMEM with 10% HyClone™ FetalClone™ II Serum (no antibiotics).2. On the 2nd day, dilute the antibodies (5X of the final concentrations) in DMEM with 10% HyClone™ FetalClone™ II Serum (no antibiotics).Note: for most antibodies, we recommend testing 11 different doses (1:3 serial dilutions), starting from 30 ug/ml or 10 ug/ml (final concentration in the well).3. Take 4 ul of the antibody solution and add into a compound plate containing 10 ul of SARS-CoV-2 PP per well (i.e. SARS-CoV-2 the 614G variant PP, Catalog # Incubate at 37 degree C for 1 hr.5. Take a cell plate out from the incubator, remove the medium, add 17.5 ul 14 of SARS-CoV-2 PP and antibody mix into each well of the cell plate. Centrifuge at 700 rpm for 15 min at 4 degree C.6. Add additional 6 ul of DMEM with 10% FC into each well.7. Incubate at 37 degree C for 42 hr.Measurement of Luciferase Activity in Infected cells1. Do not remove the medium. Add 20 ul luciferase assay WORKING SOLUTION into each well. Refer to the protocol of Read in a luminescence plate reader and record the data.

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

Application Data
Figure 2. Pseudoviral Particle (PP) Infection Assays (SARS-CoV-2 Omicron XBB.1.16 subtype pseudoviral particles on HEK293-ACE2 cells) (Luminescence plate reader: BioTek Synergy 2) Legends: XBB.1.16: SARS-CoV-2 Omicron XBB.1.16 subtype MLV pseudovirus particles (AAA62256) (-): MLV control (w/o envelope spike protein

ADDITIONAL INFORMATION

Related Product Information for COVID-19 pseudovirus	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 Omicron XBB.1.16 Pseudoviral Particles are replication-deficient MLV pseudotyped with the SARS-CoV-2 spike protein of the Omicron variant XBB.1.16 subtype (GISAID Accession # EPI_ISL_17525370). 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.

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Online datasheet: https://stage.aaabiotech.com/covid-19-pseudovirus/covid-19-pseudoviral-particles-omicron-xbb-1-16-subtype-coronavirus/62256