SARS-Related Coronavirus 2, Isolate USA-CA1/2020

Catalog No. NR-52382

For research use only. Not for human use.

Contributor:
Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Manufacturer:
BEI Resources

Product Description:
Virus Classification: Coronaviridae, Betacoronavirus
Species: Severe acute respiratory syndrome-related coronavirus 2
Isolate: USA-CA1/2020 (also referred to as USA_CA_NP530_F11/2020)
Original Source: Severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), isolate USA-CA1/2020 was isolated from a nasopharyngeal swab from a human patient in California, USA on January 23, 2020.1
Comments: Under the nomenclature system introduced by GISAID (Global Initiative on Sharing All Influenza Data), SARS-CoV-2, isolate USA-CA1/2020 is assigned lineage A and GISAID clade S using Phylogenetic Assignment of Named Global Outbreak LiNeages (PANGOLIN) tool.2,3,4 The complete genome of SARS-CoV-2, isolate USA-CA1/2020 has been sequenced (GenBank: MN994467 and GISAID: EPI_ISL_406034).

In December 2019, an outbreak of a respiratory illness (COVID-19) began in Wuhan, Hubei Province, China. The outbreak is associated with a seafood market and although environmental samples from the market are positive for the novel coronavirus, an association with a particular animal has not been determined.5 SARS-CoV-2 has been isolated from patients from several countries and the sequences of some of these isolates have been deposited with GISAID.

Material Provided:
Each vial contains approximately 0.5 mL of cell lysate and supernatant from Cercopithecus aethiops kidney cells infected with SARS-CoV-2, isolate USA-CA1/2020.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:
NR-52382 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:
Host: Cercopithecus aethiops kidney cells (Vero E6; ATCC® CRL-1586™)
Growth Medium: Eagle’s Minimum Essential Medium containing Earle’s Balanced Salt Solution, non-essential amino acids, 2 mM L-glutamine, 1 mM sodium pyruvate and 1.5 g/L of sodium bicarbonate supplemented with 2% fetal bovine serum or equivalent
Infection: Cells should be 70% to 80% confluent
Incubation: 4 to 6 days at 37°C and 5% CO2
Cytopathic Effect: Cell rounding and sloughing

Citation:
Acknowledgment for publications should read “The following reagent was deposited by the Centers for Disease Control and Prevention and obtained through BEI Resources, NIAID, NIH: SARS-Related Coronavirus 2, Isolate USA-CA1/2020, NR-52382.”

Biosafety Level: 3

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References:
1. Thungberg, N., Personal Communication.
2. GISAID

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