

**SARS-Related Coronavirus 2, Isolate hCoV-19/Singapore/12/2020 (Δ382) (Lineage B)**

**Catalog No. NR-53885**

**For research use only. Not for use in humans.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Virus Classification: *Coronaviridae, Betacoronavirus*

Species: Severe acute respiratory syndrome-related coronavirus 2

Strain/Isolate: hCoV-19/Singapore/12/2020 (Δ382)

Original Source: Severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), isolate hCoV-19/Singapore/12/2020 (Δ382) was collected on February 17, 2020, in Singapore.<sup>1</sup>

**Note: Genome sequence information is provided on the Certificate of Analysis and includes an analysis of all sequence variations observed for each lot.**

Comments: Under the nomenclature system introduced by GISAID (Global Initiative on Sharing All Influenza Data), SARS-CoV-2, isolate hCoV-19/Singapore/12/2020 (Δ382) is assigned lineage B (Pango v.3.1.20 2022-02-02) and GISAID clade S using the Phylogenetic Assignment of Named Global Outbreak lineages (PANGO) tool.<sup>1,2,3</sup> The complete genome of the clinical isolate of SARS-CoV-2, hCoV-19/Singapore/12/2020 (Δ382) has been sequenced (GISAID: EPI\_ISL\_414378).<sup>1,2</sup> The following mutations are present in EPI\_ISL\_414378: Spike F817L, NS3 A59D and a 382 base pair (bp) deletion in ORF8.<sup>1,2</sup>

Note: The mutation Spike F817L is not present in NR-53885 due to the reversion t24011c\_rev\_t. t24011c represents the original mutation from “t” in Wuhan-Hu-1 to “c” in the provided reference genome. \_rev\_t represents the reversion back to t observed in the sample. (This variant is not represented as c24011t to avoid confusion regarding the wild-type nucleotide.)

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.<sup>4</sup> 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 spin-clarified cell lysate and supernatant from *Cercopithecus aethiops* kidney cells (Vero E6) infected with SARS-CoV-2, isolate hCoV-19/Singapore/12/2020 (Δ382).

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

**Packaging/Storage:**

NR-53885 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)

Growth Medium: Dulbecco's Modified Eagle's Medium (DMEM) modified to contain 4 mM L-glutamine, 4500 milligrams per liter glucose, 1 mM sodium pyruvate and 1500 milligrams per liter sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent

Infection: Cells should be 70% to 90% confluent

Incubation: 4 to 6 days at 37°C and 5% CO<sub>2</sub>

Cytopathic Effect: Cell rounding and sloughing

**Citation:**

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: SARS-Related Coronavirus 2, Isolate hCoV-19/Singapore/12/2020 (Δ382) (Lineage B), NR-53885, contributed by Dr. Linfa Wang.”

**Biosafety Level: 3**

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see [www.cdc.gov/biosafety/publications/bmbli5/index.htm](http://www.cdc.gov/biosafety/publications/bmbli5/index.htm).

**Disclaimers:**

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**References:**

1. [GISAID](#)
2. Rambaut, A., et al. "A Dynamic Nomenclature Proposal for SARS-CoV-2 Lineages to Assist Genomic Epidemiology." *Nat. Microbiol.* 5 (2020): 1403-1407. PubMed: 32669681.
3. Mercatelli, D. and F. M. Giorgi. "Geographic and Genomic Distribution of SARS-CoV-2 Mutations." *Front. Microbiol.* (2020); doi.org/10.3389/fmicb.2020.01800. PubMed: 32793182.
4. Gralinski, L. E. and V. D. Menachery. "Return of the Coronavirus: 2019-nCoV." *Viruses* 12 (2020): 135. PubMed: 31991541.

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