

SARS-Related Coronavirus 2, Isolate Italy-INMI1

Catalog No. NR-52284

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Coronaviridae*, *Betacoronavirus*

Species: Severe acute respiratory syndrome-related coronavirus 2

Isolate: Italy-INMI1

Original Source: Severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), isolate Italy-INMI1 was isolated from sputum of a patient with a respiratory illness who had recently returned from travel to the affected region of China and developed clinical disease (COVID-19) in January 2020 in Rome, Italy.^{1,2}

Comments: Under the nomenclature system introduced by GISAID (Global Initiative on Sharing All Influenza Data), SARS-CoV-2, isolate Italy-INMI1 is assigned GISAID clade O.^{3,4} SARS-CoV-2, isolate Italy-INMI1 was collected from the first case of COVID-19 in Italy.² The complete genome of SARS-CoV-2, Italy-INMI1 has been sequenced (GenBank: [MT066156](https://www.ncbi.nlm.nih.gov/nuccore/MT066156)).⁵ Sequence of a small portion of the genome of SARS-CoV-2, Italy-INMI1 is also deposited with GISAID (EPI_ISL_406959).

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.⁶ SARS-CoV-2 was isolated and appears to be less virulent than other recently emerged coronaviruses (SARS and MERS-CoV). The sequences of several isolates have been deposited with GSAID.

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 Italy-INMI1.

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

Packaging/Storage:

NR-52284 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 90% confluent

Incubation: 3 to 4 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 Dr. Maria R. Capobianchi for distribution through BEI Resources, NIAID, NIH: SARS-Related Coronavirus 2, Isolate Italy-INMI1, NR-52284."

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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbli5/index.htm.

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Use Restrictions:

SARS-CoV-2 materials provided by BEI Resources under the EUSLA are made available for any legitimate purpose, including commercial purposes as long as they are to rapidly prevent, detect, prepare for, and respond to, the spread or

transmission of the 2019 SARS-CoV-2. Any further transfer of the original material or any unmodified progeny must be done under the terms of the EUSLA, documented as described above and you must notify BEI Resources of each subsequent transfer. Any new materials made by you that are not the original material or unmodified progeny are excluded from this requirement and you are free to share and commercialize those as your materials.

References:

1. Capobianchi, M. R., Personal Communication.
2. Colavita, F., et al. "SARS-CoV-2 Isolation from Ocular Secretions of a Patient with COVID-19 in Italy with Prolonged Viral RNA Detection." *Ann. Intern. Med.* (2020); doi: 10.7326/M20-1176. PubMed: 32302380.
3. [GISAID](#)
4. Daniele, M. and F. M. Giorgi. "Geographic and Genomic Distribution of SARS-CoV-2 Mutations." *Front. Microbiol.* (2020); doi.org/10.3389/fmicb.2020.01800.
5. Capobianchi, M. R., et al. "Molecular Characterization of SARS-CoV-2 from the First Case of COVID-19 in Italy." *Clin. Microbiol. Infect.* (2020); doi: 10.1016/j.cmi.2020.03.025. PubMed: 32229288.
6. Gralinski, L. E. and V. D. Menachery. "Return of the Coronavirus: 2019-nCoV." *Viruses* 12 (2020): 135. PubMed: 31991541.

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