

Middle East Respiratory Syndrome-Related Coronavirus, Isolate Hu/Riyadh-KSA-18013832/2018

Catalog No. NR-59606

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Coronaviridae, Betacoronavirus*

Species: Middle East respiratory syndrome-related coronavirus

Strain/Isolate: Hu/Riyadh-KSA-18013832/2018

Clade: B¹

Original Source: Middle East respiratory syndrome-related coronavirus (MERS-CoV), isolate Hu/Riyadh-KSA-18013832/2018 was isolated from a nasopharyngeal swab of a patient with respiratory illness collected on August 30, 2018, in the Kingdom of Saudi Arabia (KSA).¹

Comments: The complete genome of MERS-CoV, isolate Hu/Riyadh-KSA-18013832/2018 has been sequenced (GenBank: [MN723544](https://www.ncbi.nlm.nih.gov/nuccore/MN723544)).

Coronaviruses have large, non-segmented, positive sense RNA genomes. Middle East respiratory syndrome-related coronavirus (MERS-CoV) emerged in 2012 and cases continue to occur due to spillover from dromedary camels, primarily in Middle Eastern and northern African countries.² Approximately 40% of cases in Saudi Arabia are primary, resulting from direct contact with camels.²

Material Provided:

Each vial contains approximately 0.1 mL of spin-clarified cell lysate and supernatant from human colorectal adenocarcinoma cells (Caco-2; ATCC® HTB-37™) infected with MERS-CoV, isolate Hu/Riyadh-KSA-18013832/2018.

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

Packaging/Storage:

NR-59606 was packaged aseptically in 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: Human colorectal adenocarcinoma cells (Caco-2; ATCC® HTB-37™)

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 60% to 70% confluent

Incubation: 2 to 4 days at 37°C and 5% CO₂

Cytopathic Effect: Cell rounding and syncytia formation

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Middle East Respiratory Syndrome-Related Coronavirus, Isolate Hu/Riyadh-KSA-18013832/2018, NR-59606."

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 (BMBL). Current Edition. Washington, DC: U.S. Government Printing Office.

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References:

1. Asiri, A., Personal Communication.
2. van Doremalen, N., et al. "Surface Aerosol Stability and Pathogenicity of Diverse Middle East Respiratory Syndrome-Related Coronavirus Strains, 2012-2018. Emerg. Inf. Dis. 27 (2021): 3052-3062. PubMed: 34808078.

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