

Middle East Respiratory Syndrome Coronavirus, Recombinant Infectious Clone with T1015N Tissue Culture Adaptation Mutation (icMERS-CoV-T1015N)

Catalog No. NR-48812

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Nodovirales*, *Coronaviridae*, *Coronavirinae*, *Betacoronavirus*

Agent: Middle East respiratory syndrome coronavirus (MERS-CoV)

Strain/Isolate: Recombinant infectious clone with T1015N tissue culture adaptation mutation (icMERS-CoV-T1015N)^{1,2}

NR-48812 is a human group 2c betacoronavirus based on the MERS-CoV, EMC/2012 genome, engineered to contain the tissue culture adaptation mutation T1015N in the S glycoprotein gene.^{1,2}

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero: ATCC® CCL-81™) infected with icMERS-CoV-T1015N.

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

Packaging/Storage:

NR-48812 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: Vero cells; ATCC® CCL-81™

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

Infection: Cells should be 80% to 90% confluent

Incubation: 2 to 8 days at 37°C and 5% CO₂

Cytopathic Effect: Refractile cell rounding and detachment, with some syncytia formation

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Middle East Respiratory Syndrome Coronavirus, Recombinant Infectious Clone with T1015N Tissue Culture Adaptation Mutation (icMERS-CoV-T1015N), NR-48812."

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/bmb15/index.htm.

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References:

1. Baric, R. S., Personal Communication.
2. Scobey, T., et al. "Reverse Genetics with a Full-Length Infectious cDNA of the Middle East Respiratory Syndrome Coronavirus." *Proc. Natl. Acad. Sci. USA* 110 (2013): e5. PubMed: 24043791.

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