

# Murine Coronavirus, MHV-1, Plaque Purified

## Catalog No. NR-53715

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

### Contributor:

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### Manufacturer:

BEI Resources

### Product Description:

Virus Classification: *Coronaviridae*, *Betacoronavirus*

Species: Murine coronavirus [formerly murine hepatitis virus (MHV)]

Isolate: MHV-1

Original Source: Murine coronavirus (CoV), MHV-1 causes a respiratory illness in mice which is similar to SARS.<sup>1,2</sup>

Comments: Murine CoV, MHV-1 was plaque purified in the early 2000s in murine 17Cl-1 cells and then expanded in the same cell line.<sup>1,2</sup> The complete genome of murine coronavirus MHV-1 has been sequenced (GenBank: [FJ647223.1](#)).

### Material Provided:

Each vial contains approximately 1.0 mL of plaque-purified cell lysate and supernatant from murine 17Cl-1 cells infected with murine CoV, MHV-1.

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

### Packaging/Storage:

NR-53715 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: Murine fibroblast cells (17Cl-1, derived from 3T3 cells; BEI Resources NR-53719)

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

Infection: Cells should be 70% to 80% confluent

Incubation: 5 to 9 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: Murine Coronavirus, MHV-1, Plaque Purified, NR-53715."

### Biosafety Level: 2

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/bmbl5/index.htm](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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### References:

- De Albuquerque, N., et al. "Murine Hepatitis Virus Strain 1 Produces a Clinically Relevant Model of Severe Acute Respiratory Syndrome in A/J Mice." *J. Virol.* (2006): 10382-10394. PubMed: 17041219.
- Weiss, S., Personal Communication.

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