

Porcine Transmissible Gastroenteritis Virus (TGEV), Miller, Chemically Inactivated

Catalog No. NR-453

For research use only. Not for human use.

Contributor:

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Product Description:

Virus Classification: *Nidovirales, Coronaviridae, Coronavirus, Group 1*

Agent: Porcine transmissible gastroenteritis virus (TGEV), chemically inactivated

Strain: Miller

Original Source: Small intestinal contents of a young pig with diarrhea, vomiting, and dehydration

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from swine testicular (ST) cells infected with the Miller strain of porcine TGEV. The suspension of cell lysate and supernatant was treated with binary ethyleneimine to inactivate the virus.

Packaging/Storage:

NR-453 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. Freeze-thaw cycles should be avoided.

Growth Conditions Prior to Inactivation:

Host: ST cells

Growth Medium: Minimum Essential Medium containing Earle's salts, L-glutamine and sodium bicarbonate (supplemented with 1% nonessential amino acids and 1% antibiotics)

Infection: Cells should be approximately 18 to 24 hours old

Incubation: 4 to 5 days at 37°C

Cytopathic Effect: Fused, rounded cells, diffuse cytoplasmic vacuolation

Alternate Hosts: Porcine kidney cells¹ or gnotobiotic pigs

Note: Porcine TGEV is sensitive to ultraviolet light, high temperature and strong mechanical agitation.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID,

NIH: Porcine Transmissible Gastroenteritis Virus (TGEV), Miller, Chemically Inactivated, NR-453."

Biosafety Level: 1

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. 4th ed. Washington, DC: U.S. Government Printing Office, 1999. HHS Publication No. (CDC) 93-8395. This text is available online at www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm.

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References:

1. Bohl, E. H., R. K. P. Gupta, M. V. F. Olquin, and L. J. Saif. "Antibody Responses in Serum, Colostrum, and Milk of Swine after Infection or Vaccination with Transmissible Gastroenteritis Virus." Infect. Immun. 6 (1972): 289-301. PubMed: 4629259.

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2. Kwon, H. M., L. J. Saif, and D. J. Jackwood. "Field Isolates of Transmissible Gastroenteritis Virus Differ at the Molecular Level from the Miller and Purdue Virulent and Attenuated Strains and from Porcine Respiratory Coronaviruses." *J. Vet. Med. Sci.* 60 (1998): 589–597. PubMed: 9637293.
3. Bae, I., et al. "Differentiation of Transmissible Gastroenteritis Virus from Porcine Respiratory Coronavirus and Other Antigenically Related Coronaviruses by Using cDNA Probes Specific for the 5' Region of the S Glycoprotein Gene." *J. Clin. Microbiol.* 29 (1991): 215–218. PubMed: 1847152.
4. Simkins, R. A., P. A. Weilanu, J. Bias, and L. J. Saif. "Antigenic Variation among Transmissible Gastroenteritis Virus (TGEV) and Porcine Respiratory Coronavirus Strains Detected with Monoclonal Antibodies to the S Protein of TGEV." *Am. J. Vet. Res.* 53 (1992): 1253–1258. PubMed: 1379786.

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