

**Sendai Virus**  
(formerly Parainfluenza Virus 1, Sendai)

**Catalog No. NR-3227**

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**For research use only. Not for human use.**

**Contributor:**

National Institutes of Allergy and Infectious Disease, National Institutes of Health

**Manufacturer**

Pfizer and Company, Inc., PH-43-62-842

**Product Description:**

Reagent: Seed Virus

Virus Classification: *Paramyxoviridae*, *Respirovirus*

Agent: Sendai virus (formerly parainfluenza virus 1, Sendai)

Strain/Isolate: Unknown

NIAID Class: Research Reference Reagent

Donor (Identification #): NCDC, Virology Section (Influenza D/Sendai/52)

Donor Passage History (# of passages):

Mouse (12)

Rat (1)

Mouse (2)

Chicken embryo (28)

Producer Passage History (# of passages):

Chicken embryo (2)

**Note:** BEI Resources was asked to distribute this virus preparation from NIAID's historical repository. Historical characterization information is shown below in the Functional Activity and Purity sections (tests performed in June 1969). Recent characterization information is shown on the Certificate of Analysis.

**Material Provided/Storage:**

Composition: Allantoic fluid (90%) and sucrose gelatin (10%)

Volume: 1.0 mL

Storage Temperature: -60°C or colder

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

**Functional Activity (June 1969):**

Infectivity:

TCID<sub>50</sub>:<sup>1</sup>

3.2 x 10<sup>8</sup> per mL (Rhesus monkey kidney)

1.6 x 10<sup>9</sup> per mL (10-day chicken embryo)

0.3 to 3.2 x 10<sup>6</sup> per mL (Human amnion)

Complement Fixation:

Conditions: 2 units of activated complement (C'); 2 hours at 37°C

Titer: 1:128

Hemagglutination:

Conditions: Chicken red blood cells; 30–60 minutes at room temperature

Titer: 1:5120

**Purity (June 1969):**

Serum Neutralization Breakthrough: Negative

Bacterial Sterility: Negative

Mycoplasma: Negative

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Sendai Virus (formerly Parainfluenza Virus 1, Sendai), NR-3227."

**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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see [www.cdc.gov/biosafety/publications/bmbl5/index.htm](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

1. The Tissue Culture Infectious Dose 50% (TCID<sub>50</sub>) endpoint is the 50% infectious endpoint in tissue culture. The TCID<sub>50</sub> is the dilution of virus that under the conditions of the assay can be expected to infect 50% of the cultures inoculated, just as a Lethal Dose 50% (LD<sub>50</sub>) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the TCID<sub>50</sub> provides a measure of the titer (or infectivity) of a virus preparation.
2. Kuroya, M. and N. Ishida. "Newborn Virus Pneumonitis (Type Sendai). II. The Isolation of a New Virus Possessing Hemagglutinin Activity." Yokohama Med. Bull. 4 (1953): 217–233. PubMed 13137076.
3. Cook, M. K., et al. "Antigenic Relationships Among the Newer Myxoviruses (Parainfluenza)." Am. J. Hyg. 69 (1959): 250–264. PubMed: 13649677.
4. Abinanti, F. R., et al. "Relationship of Human and Bovine Strains of Myxovirus Para-influenza 3." Proc. Soc. Exp. Biol. Med. 106 (1961): 466–469. PubMed 13681035.
5. Abinanti, F. R., et al. "Serologic Studies on Myxovirus Para-influenza 3 in Cattle and the Prevalence of Antibodies in Bovines." J. Immunol. 86 (1961): 505–511. PubMed 13681036.
6. Ketler, A., V. V. Hamparian, and M. R. Hilleman. "Laboratory and Field Investigations of Bovine Myxovirus Parainfluenza 3 Virus and Vaccine. I. Properties of the SF-4 (Shipping Fever) Strain of Virus." J. Immunol. 87 (1961): 126–133. PubMed 13752780.
7. Hilleman, M. R. "The Parainfluenza Viruses of Man." Ann. N. Y. Acad. Sci. 101 (1962): 564–575. PubMed 13954565.
8. Jensen, K. E., B. E. Peeler, and W. G. Dulworth. "Immunization against Parainfluenza Infections. Antigenicity of Egg Adapted Types 1 and 3." J. Immunol. 89 (1962): 216–226. PubMed. 14451658.
9. Reisinger, R. C. "Parainfluenza 3 Virus in Cattle." Ann. N. Y. Acad. Sci. 101 (1962): 576–582. PubMed 13981516.
10. Chanock, R. M., et al. "Myxoviruses: Parainfluenza." Am. Rev. Respir. Dis. 88 (1963): Suppl. 152–166. PubMed 14064929.

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