

## Human Coxsackievirus B1, Conn-5

### Catalog No. NR-58650

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

#### Contributor:

National Institute of Allergy and Infectious Diseases (NIAID),  
National Institutes of Health (NIH)

#### Manufacturer:

BEI Resources

#### Product Description:

Virus Classification: *Picornaviridae*, *Enterovirus*

Species: Human coxsackievirus B1

Strain/Isolate: Conn-5

Original Source: Human coxsackievirus B1 (hCVB1), Conn-5 was isolated from the stool of a patient with aseptic meningitis in Connecticut, USA in 1948.<sup>1,2</sup> In 1951, the isolate was deposited with ATCC® by J. L. Melnick as VR-28.

Comments: NR-58650 replaces NR-51437. Human CVB1, Conn-5 was prepared from a freeze-dried preparation (NIAID V-028-001-020). The complete genome of human coxsackievirus B1 has been sequenced (GenBank: [M16560](#)).

Human coxsackievirus B1 (hCVB1) belongs to the enterovirus group B serotype. hCVB1, Conn-5 is pancreatropic, resulting in necrosis of the pancreas and leading to type 1 diabetes.<sup>3,4</sup> It may also be associated with dilated cardiomyopathy.<sup>5,6</sup>

#### Material Provided:

Each vial contains approximately 1.0 mL of cell lysate and supernatant from *Macaca mulatta* kidney epithelial cells (LLC-MK2 derivative; ATCC® CCL-7.1™) infected with hCVB1 B1, Conn-5.

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

#### Packaging/Storage:

NR-58650 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: *Macaca mulatta* (Rhesus monkey) kidney epithelial cells (LLC-MK2 derivative; ATCC® CCL-7.1™)

Growth Medium: Eagle's Minimum Essential Medium (EMEM; ATCC® 30-2003™) supplemented with 2% fetal bovine serum (ATCC® 30-2020™), or equivalent

Infection: Cells should be 70% to 80% confluent

Incubation: 3 to 5 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: Human Coxsackievirus B1, Conn-5, NR-58650."

#### 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:

- Melnick, J. L., Personal Communication.
- Melnick, J. L., E. W. Shaw and E. C. Curnen. "A Virus Isolated from Patients Diagnosed as Non-Paralytic

- Poliomyelitis or Aseptic Meningitis." Proc. Soc. Exptl. Biol. Med. 71 (1949): 344-349. PubMed: 18136475.
3. Pappenheimer, A. M., L. J. Kunz and S. Richardson. "Passage of Coxsackie Virus (Connecticut-5 Strain) in Adult Mice with Production of Pancreatic Disease." J. Exp. Med. 94 (1951): 45-64. PubMed: 14850635.
  4. Wilson, W. B. and W. J. Cheatham. "Alteration of Salivary Chloride Secretion in Weanling Mice during Infection with Coxsackie B-1 (Conn.-5) Virus." Am. J. Pathol. 41 (1962): 354-363. PubMed: 14007434.
  5. Wang, J. P. "MDA5 and MAVS Mediate Type I Interferon Responses to Coxsackie B Virus." J. Virol. 84 (2010): 254-260. PubMed: 19846534.
  6. Glenet, M., et al. "Structures and Functions of Viral 5' Non-Coding Genomic RNA Domain-I in Group-B Enterovirus Infections." Viruses 12 (2020): 919. PubMed: 32839386.

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