

## Cowpox Virus, Brighton Red

### Catalog No. NR-88

(Derived from ATCC® VR-302™)

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

#### Contributor:

ATCC®

#### Product Description:

Virus Classification: *Poxviridae, Orthopoxvirus*

Agent: Cowpox virus (CPV)

Strain/Isolate: Brighton Red

Original Source:<sup>1</sup> Finger lesion of cowman on a farm near Brighton, England in September, 1937

Comments: CPV, Brighton Red was deposited at ATCC® in 1964 by Professor Allan W. Downie, Chair of Bacteriology, The University of Liverpool, England. The original isolate had been passed multiple times in guinea pigs and rabbits.<sup>2</sup> The complete genomic sequence of the CPV, Brighton Red has been determined (GenBank: NC\_003663).<sup>3-6</sup>

#### Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from African green monkey kidney (BS-C-1) cells infected with CPV, Brighton Red.

#### Packaging/Storage:

NR-88 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: BS-C-1 cells (ATCC® CCL-26™; also available as BEI Resources NR-525)

Growth Medium: Eagle's Minimum Essential Medium supplemented with 2% fetal bovine serum, or equivalent (lot-specific details are on the Certificate of Analysis)

Infection: Cells should be 80 to 90% confluent (not 100% confluent)

Incubation: 3 to 5 days at 37°C and 5% CO<sub>2</sub>

Cytopathic Effect: Cell rounding and cell lysis

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Cowpox Virus, Brighton Red, NR-88."

#### 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. 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](http://www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm).

This publication recommends that all persons working in or entering laboratory or animal care areas where activities with cowpox virus are being conducted should have documented evidence of satisfactory vaccination within the preceding ten years.

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#### References:

1. Davies, J. H. T., L. R. Janes, and A. W. Downie. "Cowpox Infection in Farmworkers." Lancet 235 (1938): 1534-1538.
2. Downie, A. W. "The Immunological Relationship of the

- Virus of Spontaneous Cowpox to Vaccinia Virus." Brit. J. Exp. Path. 20 (1939): 158–176.
3. Pickup, D. J., D. Bastia, H. O. Stone, and W. K. Joklik. "Sequence of Terminal Regions of Cowpox Virus DNA: Arrangement of Repeated and Unique Sequence Elements." Proc. Natl. Acad. Sci. U.S.A. 79 (1982): 7112–7116. PubMed: 6961398.
  4. Parsons, B. L. and D. J. Pickup. "Transcription of Orthopoxvirus Telomeres at Late Times During Infection." Virology 175 (1990): 69–80. PubMed: 2309453.
  5. Hu, F. Q. and D. J. Pickup. "Transcription of the Terminal Loop Region of Vaccinia Virus DNA is Initiated from the Telomere Sequences Directing DNA Resolution." Virology 181 (1991): 716–720. PubMed: 2014645.
  6. Hu, F. Q., C. A. Smith, and D. J. Pickup. "Cowpox Virus Contains Two Copies of an Early Gene Encoding a Soluble Secreted Form of the Type II TNF Receptor." Virology 204 (1994): 343–356. PubMed: 8091665.

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