SUPPORTING INFECTIOUS DISEASE RESEARCH

Usutu Virus, ENT MP 1626

Catalog No. NR-51185

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

<u>Virus Classification</u>: *Flaviviridae, Flavivirus* <u>Species</u>: Usutu virus <u>Strain/Isolate</u>: ENT MP 1626

<u>Original Source</u>: Usutu virus (USUV), ENT MP 1626 was isolated from a mosquito *(Mansonia aurites)* pool in Zika Forest, Entebbe, Uganda in October 1962.^{1,2}

USUV is an emerging mosquito-borne flavivirus that circulates in several mosquito species and birds, with humans as incidental hosts.³ It belongs to the Japanese encephalitis virus (JEV) serocomplex and is closely related to West Nile virus, Murray Valley encephalitis virus and JEV.³ USUV was first discovered in 1959 in South Africa, and has since spread into Europe and is considered endemic in Central and Eastern European regions.^{3,4} The first case of human infection in Europe was reported in 2009 when the virus was isolated from the cerebrospinal fluid of an immunocompromised individual sufferina from meningoencephalitis.⁵ Later, USUV neuroinvasive infection was detected in immunocompetent individuals in Croatia in 2013.6 Even though the reported cases of human infection are sporadic, there is increased evidence of adaptive mutations for improved fitness of USUV in the human host, requiring a greater need for attention to USUV as a human pathogen moving forward.4,7

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero E6; ATCC[®] CRL-1586[™]) infected with USUV, ENT MP 1626.

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

Packaging/Storage:

NR-51185 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:

- <u>Host</u>: *Cercopithecus aethiops* kidney epithelial cells (Vero E6; ATCC[®] CRL-1586™)
- <u>Growth Medium</u>: Eagle's Minimum Essential Medium containing Earle's Balanced Salt Solution, non-essential amino acids, 2 mM L-glutamine, 1 mM sodium pyruvate and 1.5 g/L of sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent

Infection: Cells should be 70% to 80% confluent Incubation: 7 to 10 days at 37°C and 5% CO₂ Cytopathic Effect: Cell rounding and sloughing

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH, as part of the WRCEVA program: Usutu Virus, ENT MP 1626, NR-51185."

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. <u>Biosafety in</u> <u>Microbiological and Biomedical Laboratories</u>. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see <u>www.cdc.gov/biosafety/publications/bmbl5/index.htm</u>.

Disclaimers:

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References:

- 1. Russell, B., Personal Communication.
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