

West Nile Virus, Bird 114

Catalog No. NR-9538

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Flavivirus, Flaviviridae*

Agent: West Nile Virus (WNV)

Strain/Isolate: Bird 114

Original Source: WNV Bird 114 was isolated on June 10, 2002 from the brain of a dead blue jay (*Cyanocitta cristata*) collected in Harris County near Houston, Texas.¹

WNV is an arthropod-borne virus which circulates in natural transmission cycles between primarily mosquitoes (*Culex* species) and birds, with humans as incidental hosts.² The virus is indigenous to Africa, Asia, Australia and Europe, and has recently caused large epidemics in Romania, Russia and Israel. WNV was recently introduced to North America, where it was first detected in 1999 during an epidemic of meningoencephalitis in New York City.³ Most human WNV infections are asymptomatic but clinical infections can range in severity from uncomplicated West Nile fever to fatal meningoencephalitis; the incidence of severe neuroinvasive disease and death increase with age.^{4,5} There is no established WNV-specific treatment or licensed vaccine for humans currently available.⁶ Prevention depends on organized, sustained vector mosquito control and public education.⁵

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero; ATCC® CCL-81™) infected with WNV, Bird 114.

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

Packaging/Storage:

NR-9538 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: *Cercopithecus aethiops* kidney epithelial cells (Vero; ATCC® CCL-81™)

Growth Medium: Minimum Essential Medium supplemented with 2 mM L-glutamine, 1 mM sodium pyruvate, and 2% irradiated fetal bovine serum

Infection: Cells should be 80 to 90% confluent

Incubation: 4 to 8 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: West Nile Virus, Bird 114, NR-9538.”

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.

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References:

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10. Hayes, E. B., et al. "Virology, Pathology, and Clinical Manifestations of West Nile Virus Disease." Emerg. Infect. Dis. 11 (2005): 1174-1179. PubMed: 16102303.

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