

Massilia Virus, Prototype

Catalog No. NR-49772

For research use only. Not for use in humans.

Contributor:

World Reference Center for Emerging Viruses and Arboviruses (WRCEVA), University of Texas Medical Branch, Galveston, Texas, USA

Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Phenuiviridae*, *Phlebovirus*

Species: Massilia

Strain/Isolate: Prototype

Original Source: Massilia virus (MASV), prototype was isolated from a sandfly (*Phlebotomus perniciosus*) in suburbs of Marseille, France in 2006 and contributed to WRCEVA by Prof. Remi Charrel, Aix-Marseille University, Marseille, France.¹

MASV is an arthropod-borne RNA virus consisting of three segments of single-stranded RNA designated S (small), M (medium) and L (large) encoding nucleoprotein and a non-structural protein, envelope glycoprotein and the viral polymerase, respectively.^{2,3} MASV, along with Granada virus (GRV) and Punique virus (PUNV), was discovered in the western Mediterranean region, and all belong to the western Mediterranean clade of the Sandfly fever Naples virus (SFNV) complex in the genus *Phlebovirus*.³ MASV is known to be transmitted by phlebotomine sandflies but the natural cycle of MASV transmission is poorly understood. To date, there is no evidence that a species of vertebrate is the reservoir of the MASV and its pathogenicity for humans has not been demonstrated.⁴

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells infected with MASV, Prototype.

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

Packaging/Storage:

NR-49772 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 E6; ATCC® CCL-1586™)

Growth Medium: 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 60% to 80% confluent.

Incubation: 7 to 9 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: Massilia Virus, Prototype, NR-49772."

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/bmb15/index.htm.

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References:

1. Tesh, R. B., Personal Communication.
2. Charrel, R. N., et al. "Massilia Virus, a Novel *Phlebovirus* (*Bunyaviridae*) Isolated from Sandflies in the Mediterranean." *Vector Borne Zoonotic Dis.* 9 (2009): 519-530. PubMed: 19055373.
3. Palacios, G., et al. "Characterization of the Sandfly Fever Naples Species Complex and Description of a New Karimabad Species Complex (Genus *Phlebovirus*, Family *Bunyaviridae*)." *J. Gen. Virol.* 95 (2014): 292-300. PubMed: 24096318.
4. Jancarova, M., et al. "Experimental Infection of Sand Flies by Massilia Virus and Viral Transmission by Co-Feeding on Sugar Meal." *Viruses* 11 (2019): 332. PubMed: 30970559.

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