Product Information Sheet for NR-53895

Simulium vittatum, Preserved Larvae

Catalog No. NR-53895

For research use only. Not for use in humans.

Contributor and Manufacturer:

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Product Description:

Classification: *Simuliidae*, *Simulium*
Species: *Simulium vittatum* sensu stricto (common name: black fly)
Original Source: *Simulium vittatum (S. vittatum)* was collected from Flaxmill Brook in Cambridge, New York, USA, by C. A. Tarrant in September of 1981.[1]
Comments: This species is a competent vector (biological and mechanical) of vesicular stomatitis New Jersey virus (VSNJV).[2]

S. vittatum complex is distributed across North America and contains two species: *S. tribulatum* (also known as cytospecies IIIL-1), found throughout the continent, and *S. vittatum* sensu stricto, found primarily in the northern and western United States and Canada.[3] *S. vittatum* is the vector for VSNJV, the causative agent of vesicular stomatitis in ungulates such as cows, horses and swine. Vesicular stomatitis is characterized by fever and vesicles in the oral cavity and on the muzzle, snout, lips and coronary bands of feet, teats and prepuce.[2] *S. vittatum* also transmits the parasitic nematode *Onchocerca* under laboratory conditions.[4]

Material Provided:

Each vial of NR-53895 contains approximately 250 preserved larvae in 80% ethanol.

Note: Preserved *S. vittatum* can also be obtained in egg (NR-53894), pupal (NR-53896) or adult stages (NR-53897).

Packaging/Storage:

NR-53895 is prepared and shipped by the University of Georgia Black Fly Research and Resource Center. Upon arrival, the larvae should be stored at 20°C to 22°C in the dark.

Citation:

Acknowledgment for publications should read "The *Simulium vittatum* used in this work were produced with the support of NIH Task Order C-08, Contract No. HHSN2722017000351, Task Order No. 75N93020F00002 and obtained through BEI Resources, NIAID, NIH: *Simulium vittatum*, Preserved Larvae, NR-53895."

Biosafety Level: 1

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 (BMBL). Current Edition. Washington, DC: U.S. Government Printing Office.

Disclaimers:

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References:

1. Brockhouse, C. L. and P. H. Adler. "Cytogenetics of Laboratory Colonies of *Simulium vittatum* Cytospecies IS-7 (Diptera: Simuliidae)." J. Med. Entomol. 39 (2002): 293-297. PubMed: 11931029.
2. Reis, J. L., Jr., et al. "Lesion Development and Replication Kinetics During Early Infection in Cattle Inoculated with Vesicular Stomatitis New Jersey Virus via Scarification and Black Fly (*Simulium vittatum*) Bite." Vet. Pathol. 48 (2011): 547-557. PubMed: 20858740.
3. Adler, P. H., D. C. Currie and D. M. Wood. The Blackflies (Simuliidae) of North America. (2004) New York, New York: ROM Publication in Sciences.
4. Lehmann, T., M. S. Cupp and E. W. Cupp. "Analysis of Migration Success of *Onchocerca lienalis* Microfilariae in the Haemocoel of *Simulium vittatum*." J. Helminthol. 69 (1995): 47-52. PubMed: 7622790.

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5. Gray, E. W. and R. Noblet. “Black Fly Rearing and Use in Laboratory Information: Bioassays.” Rearing Animal and Plant Pathogen Vectors. (2014) Maramorosch, K. and F. Mahmood (Eds.) Boca Raton: CRC Press.
6. Bernardo, M. J., E. W. Cupp and A. E. Kiszewski. “Rearing Black Flies (Diptera: Simuliidae) in the Laboratory: Colonization and Life Table Statistics for *Simulium vittatum*.” Ann. Entomol. Soc. Am. 79 (1986): 610-621.

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