Aedes aegypti, Strain Black Eye Liverpool, Infected with Dirofilaria immitis, Strain JYD-24 (Frozen)

Catalog No. NR-49458
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Contributor:
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Manufacturer:
Filariasis Research Reagent Resource Center supported by Contract HHSN27220100030I, NIH-NIAID Animal Models of Infectious Disease Program

Product Description:
Classification: Onchocercidae, Dirofilaria
Species: Dirofilaria immitis
Strain: JYD-24
Host: Aedes aegypti, strain Black Eye Liverpool

Dirofilaria immitis (D. immitis) is a mosquito-borne filarial nematode that causes cardiopulmonary dirofilarialis in wild and domesticated canines and felines, and is the causative parasite of human pulmonary dirofilarialis. Infection with D. immitis is commonly known as heartworm disease. In the case of canines, for which D. immitis is best adapted, mosquitoes deposit infective third stage larvae (L3) on the skin which penetrate the host. Maturation from stage L3 to L4 occurs between 3 and 12 days post-infection followed by a subsequent molt producing juvenile adult worms between 50 and 70 days post-infection. The first juvenile adult worms arrive in the pulmonary artery and right ventricle of the heart between 70 and 85 days post-infection and reach sexual maturity approximately 120 days post-infection. Adult females are able to produce and release microfilariae between 6 and 9 months post-infection, which can be taken up by mosquitoes during a blood meal.

Aedes aegypti (A. aegypti) is an experimental vector for several filarial parasites, including Wuchereria bancrofti and Brugia species, that results in lymphatic filariasis when they are transferred to a human host during feeding. It can also serve as the vector for the causative agent of canine heartworm (D. immitis).

Material Provided:
NR-49458 consists of up to 300 frozen A. aegypti, strain Black Eye Liverpool, infected with D. immitis, strain JYD-24. If more material is required for your intended use, please contact BEI Customer Services at contact@beiresources.org to request the additional material.

Packaging/Storage:
NR-49458 is packaged in containers ranging from 2 mL microtubes to 50 mL conical vials, dependent on the number of mosquitoes requested. Mosquitoes will be flash frozen with liquid nitrogen or an ethanol/dry ice mixture and shipped in insulated boxes with approximately 2.5 kilograms of dry ice. The product should be stored at -20°C to -80°C or colder, depending on desired application.

Citation:
Acknowledgment for publications should read “The following reagent was provided by the NIH/NIAID Filariasis Research Reagent Resource Center for distribution by BEI Resources, NIAID, NIH: Aedes aegypti, Strain Black Eye Liverpool, Infected with Dirofilaria immitis, Strain JYD-24 (Frozen), NR-49458.”

Biosafety Level: 2

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