

***Aedes aegypti* Orlando orco2**

**Catalog No. NR-44376**

**For research use only. Not for human use.**

**Contributor:**

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**Manufacturer:**

Centers for Disease Control and Prevention

**Product Description:**

Classification: Diptera: *Culicidae*

Species: *Aedes aegypti*

Subspecies/strain: Orlando – *orco*<sup>2</sup> mutant

Common name: yellow fever mosquito

Original Source: recombinant Orlando strain

Genotype: *orco* [2] mutant allele 2bp deletion in *orco* gene (zinc-finger nuclease mediated mutation).

Phenotype: loss of olfactory sensitivity, defects in host seeking, defects in host preference.

Pathogens for which vector is transmission competent:

Unknown; parental line may be competent for dengue fever and yellow fever viruses.

**Material Provided:**

Room temperature live eggs.

**Packaging/Storage:**

This material is prepared and shipped from CDC, Atlanta, GA USA.

**Growth/Rearing Conditions:**

Maintain *Aedes aegypti* at 25-28°C at 70-80% relative humidity under a 14 hr light:10 hr dark cycle (lights on 8 am). Hatch eggs in deoxygenated, deionized water containing powdered Tetramin tropical fish food (Tetra, Melle, Germany). Culture larvae in deionized water and feed Tetramin tablets. Feed adults through unlimited access to 10% sucrose solution. Human or mouse blood-feeding is used to induce egg production.

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Aedes aegypti* Orlando *orco*2, NR-44376."

**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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see [www.cdc.gov/biosafety/publications/bmbl5/index.htm](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

DeGennaro, M, McBride, CS, Seeholzer, L, Takao Nakagawa, T, Dennis, EJ, Goldman, C., Jasinskiene, N., James, A. A. & Vosshall, L. B. *orco* mutant mosquitoes lose

strong preference for humans and are not repelled by volatile DEET. Nature 498: 487-491, 2013. PubMed: 23719379

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