

***Aedes aegypti* Orlando orco5**

Catalog No. NR-44377

For research use only. Not for human use.

Contributor:

Leslie Vosshall, The Rockefeller University

Manufacturer:

Centers for Disease Control and Prevention

Product Description:

Classification: Diptera: *Culicidae*

Species: *Aedes aegypti*

Subspecies/strain: Orlando – orco⁵ mutant

Common name: yellow fever mosquito

Original Source: recombinant Orlando strain

Genotype: orco [5] mutant allele, 5bp 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 orco5, NR-44377."

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.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

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

BEI Resources is funded by the National Institute of Allergy and Infectious Diseases (NIAID). ATCC® is a trademark of the American Type Culture Collection.