

***Aedes aegypti* Orlando Gr3<sup>4</sup>**

**Catalog No. NR-48759**

**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 – Gr3<sup>4</sup> mutant

Common name: yellow fever mosquito

Original Source: recombinant Orlando strain

Genotype: Gr3<sup>4</sup> harbors a 4 bp deletion in exon 3 of *AegGr3* CO<sub>2</sub> receptor (vectorbase ID: AAEL010058), generated by nonhomologous end-joining, leading to a frameshift and multiple nonsense mutations.

Phenotype: loss of sensitivity to volatile carbon dioxide, diminished attraction to host.

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. Adults housed in 28 x 28 x 28 cm screened cage from Bioquip (Rancho Dominguez, CA).

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH:

*Aedes aegypti* Orlando Gr3<sup>4</sup>, NR-48759."

**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:**

McMeniman, CJ Corfas RA, Matthews BJ, Ritchie SA, Vosshall, LB. Multimodal Integration of Carbon Dioxide and Other Sensory Cues Drives Mosquito Attraction to Humans. Cell 156: 1060-1071, 2014. PubMed: 24581501

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