Product Information Sheet for NR-48760

Aedes aegypti Orlando *Gr3*^{ECFP}

Catalog No. NR-48760

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 – *Gr3*^{ECFP} mutant
Common name: yellow fever mosquito
Original Source: recombinant Orlando strain
Genotype: *Gr3*^{ECFP} harbors a homologous recombination allele with a 33 bp deletion of exon 3 in the *AaegGr3* CO_2 receptor (vectorbase ID: AAEL010058), by homology-directed zinc finger nuclease repair. A 2.45 kb insertion cassette marks mutants visually with enhanced cyan fluorescent protein (ECFP) fluorescence and can be detected in the *Gr3* locus by PCR.
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*^{ECFP}, NR-48760."

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.

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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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