

Aedes aegypti, Strain Nup50-Cas9, Eggs

Catalog No. NR-58887

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Product Description:

Classification: Culicidae, Aedes

Species: Aedes aegypti

Strain: Nup50-Cas9

Original Source: Aedes aegypti (Ae. aegypti), strain Nup50-Cas9 (AAEL005635) was derived from wild-type strain Liverpool.^{1,2}

Genotype: Ae. aegypti, strain Nup50-Cas9 (AAEL005635) is a transgenic strain endogenously expressing Cas9 under control of the nuclear pore complex protein (Nup50) (AAEL005635) promoter.^{1,2}

Comments: Ae. aegypti, strain Nup50-Cas9 (AAEL005635) was generated by the introduction of a piggyBac transposon containing the Nup50 (AAEL005635) promoter upstream of the coding sequence for Cas9.² CFP expression driven by the baculovirus-derived Opie2 promoter serves as a transgenesis marker.^{1,3}

Material Provided:

NR-58887 contains a suitable number of live eggs to establish a stock. Eggs are provided on damp filter paper and should be hatched immediately upon receipt.

Packaging/Storage:

NR-58887 prepared and shipped by the CDC. The product is provided at room temperature.

Growth Conditions:

Standard Ae. aegypti rearing procedures are recommended. In addition, the larvae should be scanned each generation for bright CFP and those larvae should be selected to maintain the transgenic line.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Aedes aegypti, Strain Nup50-Cas9, NR-58887.

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 \(BMBL\)](#), 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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References:

1. Akbari, O., Personal Communication.
2. Li, M., et al. "Germline Cas9 Expression Yields Highly Efficient Genome Engineering in a Major Worldwide Disease Vector, Aedes aegypti." *Proc. Natl. Acad. Sci. USA* 114 (2017): E10540-E10549. PubMed: 29138316.
3. Li, M., et al. "Suppressing Mosquito Populations with Precision Guided Sterile Males." *Nat. Commun.* 12 (2021): 5374. PubMed: 34508072.

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