

Resource Summary Report

Generated by [RRID](#) on Aug 17, 2026

pHsp70-Cas9

RRID:Addgene_45945

Type: Plasmid

Proper Citation

RRID:Addgene_45945

Plasmid Information

URL: <http://www.addgene.org/45945>

Proper Citation: RRID:Addgene_45945

Insert Name: Codon optimized Cas9

Bacterial Resistance: Kanamycin

Defining Citation: [PMID:23709638](#)

Vector Backbone Description: Backbone Size:2300; Vector Backbone:pHSS6; Vector Types:CRISPR; Bacterial Resistance:Kanamycin

Comments: For more information on FlyCRISPR plasmids and a list of related plasmids please refer to: <https://www.addgene.org/browse/article/6834/>. Plasmid 51019: pDsRed-attP (www.addgene.org/51019) can be for generating dsDNA donors for homology-directed repair to replace genes or other genomic sequence with an attP docking site.

Plasmid Name: pHsp70-Cas9

Relevant Mutation: Silent change from C to A at bp 834 of insert

Record Creation Time: 20220422T222237+0000

Record Last Update: 20260815T081527+0000

Ratings and Alerts

No rating or validation information has been found for pHsp70-Cas9.

No alerts have been found for pHsp70-Cas9.

Data and Source Information

Usage and Citation Metrics

We found 21 mentions in open access literature.

Listed below are recent publications. The full list is available at [RRID](#) .

Ham SJ, et al. (2025) Reciprocal rescue of Wolfram syndrome by two causative genes. *EMBO reports*, 26(9), 2459.

Ham SJ, et al. (2025) Mitochondrial fumarate inhibits Parkin-mediated mitophagy. *Molecular cell*, 85(12), 2287.

Takagi S, et al. (2024) Olfactory sensory neuron population expansions influence projection neuron adaptation and enhance odour tracking. *Nature communications*, 15(1), 7041.

Schember I, et al. (2024) Conserved and novel enhancers in the *Aedes aegypti* single-minded locus recapitulate embryonic ventral midline gene expression. *PLoS genetics*, 20(4), e1010891.

Ham SJ, et al. (2023) PINK1 and Parkin regulate IP3R-mediated ER calcium release. *Nature communications*, 14(1), 5202.

Metzloff M, et al. (2022) Experimental demonstration of tethered gene drive systems for confined population modification or suppression. *BMC biology*, 20(1), 119.

Yang E, et al. (2022) A homing suppression gene drive with multiplexed gRNAs maintains high drive conversion efficiency and avoids functional resistance alleles. *G3 (Bethesda, Md.)*, 12(6).

Langmüller AM, et al. (2022) Fitness effects of CRISPR endonucleases in *Drosophila melanogaster* populations. *eLife*, 11.

Auer TO, et al. (2022) Copy number changes in co-expressed odorant receptor genes enable selection for sensory differences in drosophilid species. *Nature ecology & evolution*, 6(9), 1343.

Lule-Chávez AN, et al. (2021) Genetic transformation of mosquitoes by microparticle bombardment. *Insect molecular biology*, 30(1), 30.

Ham SJ, et al. (2021) Loss of UCHL1 rescues the defects related to Parkinson's disease by suppressing glycolysis. *Science advances*, 7(28).

Carvajal-Garcia J, et al. (2021) DNA polymerase theta suppresses mitotic crossing over. *PLoS genetics*, 17(3), e1009267.

Champer J, et al. (2020) A toxin-antidote CRISPR gene drive system for regional population modification. *Nature communications*, 11(1), 1082.

Liu J, et al. (2019) Maximum Likelihood Estimation of Fitness Components in Experimental Evolution. *Genetics*, 211(3), 1005.

Champer J, et al. (2019) Molecular safeguarding of CRISPR gene drive experiments. *eLife*, 8.

Guichard A, et al. (2019) Efficient allelic-drive in *Drosophila*. *Nature communications*, 10(1), 1640.

Champer J, et al. (2018) Reducing resistance allele formation in CRISPR gene drive. *Proceedings of the National Academy of Sciences of the United States of America*, 115(21), 5522.

Xu XS, et al. (2017) CRISPR/Cas9 and active genetics-based trans-species replacement of the endogenous *Drosophila* *kni-L2* CRM reveals unexpected complexity. *eLife*, 6.

Champer J, et al. (2017) Novel CRISPR/Cas9 gene drive constructs reveal insights into mechanisms of resistance allele formation and drive efficiency in genetically diverse populations. *PLoS genetics*, 13(7), e1006796.

Dong S, et al. (2015) Heritable CRISPR/Cas9-mediated genome editing in the yellow fever mosquito, *Aedes aegypti*. *PloS one*, 10(3), e0122353.