

Resource Summary Report

Generated by [NIF](#) on Aug 18, 2026

pSpCas9(BB)-2A-Puro (PX459) V2.0

RRID:Addgene_62988

Type: Plasmid

Proper Citation

RRID:Addgene_62988

Plasmid Information

URL: <http://www.addgene.org/62988>

Proper Citation: RRID:Addgene_62988

Insert Name: hSpCas9-2A-Puro V2.0

Organism: Synthetic

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:24157548](#)

Vector Backbone Description: Vector Backbone:PX459; Vector Types:Mammalian Expression, CRISPR; Bacterial Resistance:Ampicillin

Comments: NOTE: This is an improved version of Addgene Plasmid #48139. It has improved puromycin selection. The EcoRI site is not unique and flanks the puromycin cassette. For more information on Zhang Lab CRISPR Plasmids please refer to: <http://www.addgene.org/crispr/zhang/> The guide sequence is cloned into this plasmid using BbsI sites. The hU6-F primer (5'-GAGGGCCTATTTCCCATGATT-3') can be used to confirm the gRNA sequence after cloning into the plasmid. Please see the cloning protocol provided by the Zhang lab for more details.

Plasmid Name: pSpCas9(BB)-2A-Puro (PX459) V2.0

Record Creation Time: 20220422T222400+0000

Record Last Update: 20260815T081757+0000

Ratings and Alerts

No rating or validation information has been found for pSpCas9(BB)-2A-Puro (PX459) V2.0.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 1754 mentions in open access literature.

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

Corkery DP, et al. (2026) The ATG8 E3-like ligases sense lysosomal damage and initiate ESCRT-mediated membrane repair. The EMBO journal, 45(3), 930.

Utgaard ME, et al. (2026) Mechanically-induced Septin Networks Protect Nuclear Integrity. bioRxiv : the preprint server for biology.

Hosogane M, et al. (2026) Variant-specific interaction of kinectin 1 with the multi-tRNA synthetase complex regulates ER sheet organization. iScience, 29(1), 114303.

van Staalduinen J, et al. (2026) Chromatin dynamics of the Klf4 locus in mouse pluripotent cells. Scientific reports, 16(1).

Dupas SJ, et al. (2026) Splice isoform-perturbation coupled to single cell transcriptome profiling reveals functions of microexons in neurogenesis and autism-linked pathways. Nature communications, 17(1), 1217.

Kumari B, et al. (2026) Single-cell exon deletion profiling reveals splicing events that shape gene expression and cell state dynamics. Nature communications, 17(1), 1218.

Lo YH, et al. (2026) Transcriptional competence defines the heterochromatin nucleating potential of isolated MSR units. Nature communications, 17(1).

van Grinsven EJ, et al. (2026) Microtubule organization and molecular architecture of ciliary basal bodies in multiciliated airway cells. Current biology : CB, 36(9), 2285.

Landi E, et al. (2026) Biallelic rescue of CTG18.1 in two Fuchs endothelial corneal dystrophy-derived iPSC lines (SCTCi047-A-2, SCTCi046-A-2) following a two-step gene editing strategy. Stem cell research, 95, 104032.

Vind AC, et al. (2026) Mechanism of RACK1-dependent ZAK? activation at stalled and collided ribosomes. Molecular cell, 86(12), 2341.

Yamsek M, et al. (2026) Structural basis of regulated N-glycosylation at the secretory translocon. Nature, 649(8097), 777.

Cramer Z, et al. (2026) APC coordinates GSK3 phosphorylation of SETD8 to suppress colorectal cancer. Cell reports, 45(3), 117045.

Leix K, et al. (2026) Functional interrogation of candidate cis-regulatory elements at the LDLR locus. PLoS genetics, 22(3), e1012082.

Mbah NE, et al. (2026) Tumor cell death by ferroptosis contributes to an immunosuppressive tumor microenvironment in syngeneic murine models of cancer. Cancer & metabolism, 14(1).

Wulfridge P, et al. (2026) ADNP regulates chromatin architecture and lineage fidelity during neural differentiation. PLoS genetics, 22(4), e1012081.

Xia M, et al. (2026) Apolipoprotein E (APOE) Promotes Cell Proliferation and Invasion in Glioma via the PI3K/AKT Signaling Pathway. Cancer management and research, 18, 594906.

Yan AP, et al. (2026) Base editing in the AUTS2 gene and high-throughput NGS genotyping of clones: a strategy for generating a cellular model. Vavilovskii zhurnal genetiki i selektsii, 30(1), 72.

Robinette MI, et al. (2026) Convergent effects of neurodevelopmental disorder-associated variants at mitochondria. bioRxiv : the preprint server for biology.

Skoczynski K, et al. (2026) HIF-Regulated Pannexin-1 Channel Drives Luminal ATP Accumulation in Kidney Cysts. FASEB journal : official publication of the Federation of American Societies for Experimental Biology, 40(10), e71892.

Zhu Y, et al. (2026) Dependence of cell fate potential and cadherin switching on the coordinate within the primitive streak during differentiation of human pluripotent stem cells. Development (Cambridge, England), 153(7).