

Resource Summary Report

Generated by [NIF](#) on Jul 30, 2026

BPK1520

RRID:Addgene_65777

Type: Plasmid

Proper Citation

RRID:Addgene_65777

Plasmid Information

URL: <http://www.addgene.org/65777>

Proper Citation: RRID:Addgene_65777

Insert Name: SpCas9 gRNA backbone, without spacer sequence

Organism: Synthetic

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:26098369](#)

Vector Backbone Description: Backbone Marker:Joung lab (Addgene Plasmid # 43860); Vector Backbone:MLM3636; Vector Types:Mammalian Expression, CRISPR; Bacterial Resistance:Ampicillin

Comments: Use BsmBI sites to insert sgRNA spacer sequence into the vector. See the supplemental document "Joung Lab gRNA Cloning Protocol" for more details. This plasmid has been found to be somewhat unstable and prone to concatenation. Concatenation often does not impact plasmid function, but may reduce transformation efficiencies. You may need to screen multiple colonies to isolate the monomeric version of this plasmid. If you still have trouble isolating the monomeric version, you might consider linearizing, gel extracting, re-ligating, and transforming the plasmid.

Plasmid Name: BPK1520

Record Creation Time: 20220422T222414+0000

Record Last Update: 20260725T075012+0000

Ratings and Alerts

No rating or validation information has been found for BPK1520.

No alerts have been found for BPK1520.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 62 mentions in open access literature.

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

Silverstein RA, et al. (2025) Custom CRISPR-Cas9 PAM variants via scalable engineering and machine learning. *Nature*, 643(8071), 539.

Fu Y, et al. (2025) In vivo prime editing rescues photoreceptor degeneration in nonsense mutant retinitis pigmentosa. *Nature communications*, 16(1), 2394.

Alves CRR, et al. (2025) Treatment of a severe vascular disease using a bespoke CRISPR-Cas9 base editor in mice. *Nature biomedical engineering*.

Netsawang C, et al. (2025) Precise correction of G6PD Viangchan mutation in iPSCs by prime editing strategy. *Scientific reports*, 15(1), 30192.

Tachida Y, et al. (2025) Systematic empirical evaluation of individual base editing targets: Validating therapeutic targets in USH2A and comparison of methods. *Molecular therapy : the journal of the American Society of Gene Therapy*, 33(4), 1466.

Zheng Z, et al. (2025) GenomePAM directs PAM characterization and engineering of CRISPR-Cas nucleases using mammalian genome repeats. *Research square*.

Kinloch AJ, et al. (2025) Development of a Novel Biomarker Platform for Profiling Key Protein-Protein Interactions to Predict the Efficacy of BH3-Mimetic Drugs. *Cancers*, 17(11).

Biar CG, et al. (2025) Protocol to perform multiplexed assays of variant effect using curated loci prime editing. *STAR protocols*, 6(2), 103851.

Couly S, et al. (2024) Benzomorphan and non-benzomorphan agonists differentially alter sigma-1 receptor quaternary structure, as does types of cellular stress. *Cellular and molecular life sciences : CMLS*, 81(1), 14.

Alves CRR, et al. (2024) Optimization of base editors for the functional correction of SMN2 as a treatment for spinal muscular atrophy. *Nature biomedical engineering*, 8(2), 118.

Nam M, et al. (2024) Glucose limitation protects cancer cells from apoptosis induced by pyrimidine restriction and replication inhibition. *Nature metabolism*, 6(12), 2338.

Busquets O, et al. (2024) iSCORE-PD: an isogenic stem cell collection to research Parkinson's Disease. *bioRxiv : the preprint server for biology*.

Chen X, et al. (2024) The FXR1 network acts as a signaling scaffold for actomyosin remodeling. *Cell*, 187(18), 5048.

Li J, et al. (2024) Modeling the atrioventricular conduction axis using human pluripotent stem cell-derived cardiac assembloids. *Cell stem cell*, 31(11), 1667.

Fry MY, et al. (2024) In situ architecture of Opa1-dependent mitochondrial cristae remodeling. *The EMBO journal*, 43(3), 391.

Christensen CL, et al. (2024) Base editing rescues acid α -glucosidase function in infantile-onset Pompe disease patient-derived cells. *Molecular therapy. Nucleic acids*, 35(2), 102220.

Mesaki K, et al. (2024) CRISPR-Cas Genome Editing in Ex Vivo Human Lungs to Rewire the Translational Path of Genome-Targeting Therapeutics. *Human gene therapy*, 35(11-12), 374.

Rha AK, et al. (2024) Base editing of the GLB1 gene is therapeutic in GM1 gangliosidosis patient-derived cells. *Molecular genetics and metabolism*, 143(1-2), 108568.

Bonnycastle LL, et al. (2024) Generation of Human Isogenic Induced Pluripotent Stem Cell Lines with CRISPR Prime Editing. *The CRISPR journal*, 7(1), 53.

Goldberg GW, et al. (2024) Engineered transcription-associated Cas9 targeting in eukaryotic cells. *Nature communications*, 15(1), 10287.