

Resource Summary Report

Generated by [NIF](#) on Sep 6, 2026

pdCas9-DNMT3A-PuroR (ANV)_v2

RRID:Addgene_74408

Type: Plasmid

Proper Citation

RRID:Addgene_74408

Plasmid Information

URL: <http://www.addgene.org/74408>

Proper Citation: RRID:Addgene_74408

Insert Name: S. pyogenes dCas9 fused with the inactivated (E756A) catalytic domain of human DNMT3A (amino acids P602-V912) and T2A-PuroR (v2)

Organism: Homo sapiens

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:26969735](#)

Vector Backbone Description: Backbone Size:4246; Vector Backbone:PX462; Vector Types:Mammalian Expression, CRISPR; Bacterial Resistance:Ampicillin

Comments: The catalytic domain of human DNMT3A (amino acids P602-V912) was derived from the plasmid pcDNA3/Myc-DNMT3A (Addgene, plasmid #35521) (Chen et al., 2005, J Cell Biochem 95: 902-917). Undesired BbsI restriction site was removed by site-directed mutagenesis, without affecting the amino acid sequence. The DNMT3A active site motif ENV was mutated to ANV (E756A). Plasmid pSpCas9n(BB)-2A-Puro (PX462) (Addgene, plasmid #48141) (Ran et al., 2013, Nat Protoc 8: 2281-2308) was used as a backbone. Additional H840A mutation was introduced into Cas9n D10A nickase. Puromycin gene was mutated by site-directed mutagenesis (H166R) to improve its efficacy.

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Relevant Mutation: D10A and H840A in S.pyogenes Cas9; E756A inactivating mutation in H. sapiens DNMT3A

Record Creation Time: 20220422T222454+0000

Record Last Update: 20260905T080102+0000

Ratings and Alerts

No rating or validation information has been found for pdCas9-DNMT3A-PuroR (ANV)_v2.

No alerts have been found for pdCas9-DNMT3A-PuroR (ANV)_v2.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.