Resource Summary Report

Generated by NIF on Sep 21, 2026

pUCmini-iCAP-PHP.B

RRID:Addgene_103002
Type: Plasmid

Proper Citation

RRID:Addgene_103002

Plasmid Information

URL: http://www.addgene.org/103002

Proper Citation: RRID:Addgene_103002

Insert Name: Synthetic construct isolate AAV-PHP.B VP1 gene

Organism: Synthetic

Bacterial Resistance: Ampicillin

Defining Citation: PMID:26829320

Vector Backbone Description: Vector Backbone:pUC57-mini; Vector Types:Mammalian Expression, AAV; Bacterial Resistance:Ampicillin

Comments: Please note that this is a non-standard rep-cap construct. It uses a tTA-TRE amplification loop to increase Capsid expression and AAV production. We find that this system increases AAV titers 1.5-5 fold (Ben Deverman, Bryan Simpson and Paul Patterson, unpublished data). This is a tet-off system, so no dox or tet is needed to turn it on. It can be used like any other rep-cap plasmid. *This system should only present a problem if the rAAV genome to be packaged has a tet responsive element that directs expression of a protein that affected the health of the production cells. The introduction of an XbaI restriction site for ease of cloning introduces a K449R mutation, which does not have an overt effect on vector production or transduction.

Plasmid Name: pUCmini-iCAP-PHP.B

Record Creation Time: 20220422T221458+0000

Record Last Update: 20260919T090409+0000

Ratings and Alerts

No rating or validation information has been found for pUCmini-iCAP-PHP.B.

No alerts have been found for pUCmini-iCAP-PHP.B.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 14 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF .

Ramirez JJ, et al. (2026) Astrocyte-microglia crosstalk through Hevin and Toll-like receptor signaling controls developmental thalamocortical synapse refinement. Neuron, 114(8), 1433.

Radukic MT, et al. (2026) Engineering of High-Yield Recombinant Adeno-Associated Virus Producer Plasmids. Biotechnology journal, 21(1), e70179.

Heo EY, et al. (2025) Impaired neuromodulator crosstalk delays arousal-dependent astroglia Ca2+ activation in mouse models of Alzheimer's disease. iScience, 28(8), 113120.

Shay TF, et al. (2023) Primate-conserved carbonic anhydrase IV and murine-restricted LY6C1 enable blood-brain barrier crossing by engineered viral vectors. Science advances, 9(16), eadg6618.

Ogawa Y, et al. (2023) Antibody-directed extracellular proximity biotinylation reveals Contactin-1 regulates axo-axonic innervation of axon initial segments. bioRxiv : the preprint server for biology.

Wang J, et al. (2023) An ultra-compact promoter drives widespread neuronal expression in mouse and monkey brains. Cell reports, 42(11), 113348.

Kim H, et al. (2022) Reactive astrocytes transduce inflammation in a blood-brain barrier model through a TNF-STAT3 signaling axis and secretion of alpha 1-antichymotrypsin. Nature communications, 13(1), 6581.

Chen X, et al. (2022) Engineered AAVs for non-invasive gene delivery to rodent and non-human primate nervous systems. Neuron, 110(14), 2242.

Gray SR, et al. (2021) Noradrenergic terminal short-term potentiation enables modality-selective integration of sensory input and vigilance state. Science advances, 7(51), eabk1378.

Arotcarena ML, et al. (2021) Pilot Study Assessing the Impact of Intrathecal Administration of Variants AAV-PHP.B and AAV-PHP.eB on Brain Transduction in Adult Rhesus Macaques. Frontiers in bioengineering and biotechnology, 9, 762209.

Men Y, et al. (2020) Astroglial FMRP deficiency cell-autonomously up-regulates miR-128 and disrupts developmental astroglial mGluR5 signaling. Proceedings of the National Academy of Sciences of the United States of America, 117(40), 25092.

Ravindra Kumar S, et al. (2020) Multiplexed Cre-dependent selection yields systemic AAVs for targeting distinct brain cell types. Nature methods, 17(5), 541.

Challis RC, et al. (2019) Systemic AAV vectors for widespread and targeted gene delivery in rodents. Nature protocols, 14(2), 379.

Xing G, et al. (2019) A mechanism in agrin signaling revealed by a prevalent Rapsyn mutation in congenital myasthenic syndrome. eLife, 8.