

Resource Summary Report

Generated by [NIF](#) on Jul 31, 2026

pHRIG-AktDN

RRID:Addgene_53597

Type: Plasmid

Proper Citation

RRID:Addgene_53597

Plasmid Information

URL: <http://www.addgene.org/53597>

Proper Citation: RRID:Addgene_53597

Insert Name: Akt1

Organism: Mus musculus

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:23942361](#)

Vector Backbone Description: Vector Backbone:pHR-IG (pHR'tripCMV-IRES-eGFP);
Vector Types:Mammalian Expression, Lentiviral; Bacterial Resistance:Ampicillin

Comments: AktDN was purchased from Addgene (plasmid # 16243). The AktDN gene is an Akt gene where a point mutation in the 179th amino acid from the N terminal converts a lysine to a methionine. This mutated form of the Akt protein can still be phosphorylated at the S473 site but loses its ability to affect downstream factors.

Plasmid Name: pHRIG-AktDN

Relevant Mutation: Dominant negative (K179M)

Record Creation Time: 20220422T222314+0000

Record Last Update: 20260725T074830+0000

Ratings and Alerts

No rating or validation information has been found for pHRIG-AktDN.

No alerts have been found for pHRIG-AktDN.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 7 mentions in open access literature.

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

Wang YJ, et al. (2024) Hsp47 promotes biogenesis of multi-subunit neuroreceptors in the endoplasmic reticulum. *eLife*, 13.

Zhu X, et al. (2020) c-Jun acts downstream of PI3K/AKT signaling to mediate the effect of leptin on methionine adenosyltransferase 2B in hepatic stellate cells in vitro and in vivo. *The Journal of pathology*, 252(4), 423.

Zhang W, et al. (2020) Cerebral organoid and mouse models reveal a RAB39b-PI3K-mTOR pathway-dependent dysregulation of cortical development leading to macrocephaly/autism phenotypes. *Genes & development*, 34(7-8), 580.

Zhang X, et al. (2020) Oligodendroglial glycolytic stress triggers inflammasome activation and neuropathology in Alzheimer's disease. *Science advances*, 6(49).

Bruyère J, et al. (2020) Presynaptic APP levels and synaptic homeostasis are regulated by Akt phosphorylation of huntingtin. *eLife*, 9.

Hu D, et al. (2019) Alpha-synuclein suppresses mitochondrial protease ClpP to trigger mitochondrial oxidative damage and neurotoxicity. *Acta neuropathologica*, 137(6), 939.

Nowak DG, et al. (2015) MYC Drives Pten/Trp53-Deficient Proliferation and Metastasis due to IL6 Secretion and AKT Suppression via PHLPP2. *Cancer discovery*, 5(6), 636.