

Resource Summary Report

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

pDONR223-PDK1

RRID:Addgene_23804

Type: Plasmid

Proper Citation

RRID:Addgene_23804

Plasmid Information

URL: <http://www.addgene.org/23804>

Proper Citation: RRID:Addgene_23804

Insert Name: PDK1

Organism: Homo sapiens

Bacterial Resistance: Spectinomycin

Defining Citation: [PMID:21107320](#)

Vector Backbone Description: Backbone Marker:Invitrogen; Backbone Size:5005; Vector Backbone:pDONR223; Vector Types:Gateway Cloning; Bacterial Resistance:Spectinomycin

Comments: The ORF has no Stop codon. This design enables easy recombination into a destination vector to add an epitope tag of choice and Stop codon to the ORF. Do NOT use this plasmid directly for transfections. A set of 4 custom lentiviral vectors is available (pLX301 (<http://www.addgene.org/25895/>) , pLX302 (<http://www.addgene.org/25896/>) , pLX303 (<http://www.addgene.org/25897/>) , pLX304 (<http://www.addgene.org/25890/>)) to be used to express these ORFs in mammalian cells. These plasmids are not included in the kit and must be ordered separately.

Plasmid Name: pDONR223-PDK1

Record Creation Time: 20220422T222106+0000

Record Last Update: 20260725T074444+0000

Ratings and Alerts

No rating or validation information has been found for pDONR223-PDK1.

No alerts have been found for pDONR223-PDK1.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 5 mentions in open access literature.

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

Watt K, et al. (2025) Epigenetic alterations facilitate transcriptional and translational programs in hypoxia. *Nature cell biology*, 27(11), 1965.

Zhang W, et al. (2018) Identification of Novel Pyruvate Dehydrogenase Kinase 1 (PDK1) Inhibitors by Kinase Activity-Based High-Throughput Screening for Anticancer Therapeutics. *ACS combinatorial science*, 20(11), 660.

Zhang SL, et al. (2017) Synthesis and biological evaluation of (R)-3,3,3-trifluoro-2-hydroxy-2-methylpropionamides as pyruvate dehydrogenase kinase 1 (PDK1) inhibitors to reduce the growth of cancer cells. *European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences*, 110, 87.

Zhang W, et al. (2017) Phenyl butyrate inhibits pyruvate dehydrogenase kinase 1 and contributes to its anti-cancer effect. *European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences*, 110, 93.

Wang LY, et al. (2016) KDM4A Coactivates E2F1 to Regulate the PDK-Dependent Metabolic Switch between Mitochondrial Oxidation and Glycolysis. *Cell reports*, 16(11), 3016.