

Resource Summary Report

Generated by [RRID](#) on Aug 23, 2026

[pHaMDRwt](#)

RRID:Addgene_10957

Type: Plasmid

Proper Citation

RRID:Addgene_10957

Plasmid Information

URL: <http://www.addgene.org/10957>

Proper Citation: RRID:Addgene_10957

Insert Name: MDR1

Organism: Homo sapiens

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:2898143](#)

Vector Backbone Description: Backbone Size:11000; Vector Backbone:pHa; Vector Types:Mammalian Expression, Retroviral; Bacterial Resistance:Ampicillin

Comments: Full-length cDNA, has the wild-type glycine at position 185 on P-glycoprotein (see GenBank ID M14758.1 for the sequence variations at nucleotides 382, 964, 978, 979, 1660 and 2065 that are present in this plasmid) The "Ha" in pHaMDRwt stand for the Harvey sarcoma virus. Vector can confer the complete multidrug-resistance phenotype to various drug sensitive cell lines. Figure legend for author's map: Structure of retroviral vector carrying MDR] cDNA. sites: B, BamHI; E, EcoRI; H, HindIII; S, Stu I; X, Xho I. bp, Base pairs; amp, ampicillin resistance gene.

Plasmid Name: pHaMDRwt

Record Creation Time: 20220422T221531+0000

Record Last Update: 20260815T080130+0000

Ratings and Alerts

No rating or validation information has been found for pHaMDRwt.

No alerts have been found for pHaMDRwt.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 35 mentions in open access literature.

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

Tighe A, et al. (2025) Screening a living biobank identifies cabazitaxel as a strategy to combat acquired taxol resistance in high-grade serous ovarian cancer. *Cell reports. Medicine*, 6(6), 102160.

Pelegriova L, et al. (2024) Zosuquidar: An Effective Molecule for Intracellular Ca²⁺ Measurement in P-gp Positive Cells. *International journal of molecular sciences*, 25(6).

Kamada Y, et al. (2024) HERC3 facilitates ERAD of select membrane proteins by recognizing membrane-spanning domains. *The Journal of cell biology*, 223(7).

Lin YT, et al. (2022) USP7 Induces Chemoresistance in Triple-Negative Breast Cancer via Deubiquitination and Stabilization of ABCB1. *Cells*, 11(20).

Bertova A, et al. (2022) Effects of Sulforaphane-Induced Cell Death upon Repeated Passage of Either P-Glycoprotein-Negative or P-Glycoprotein-Positive L1210 Cell Variants. *International journal of molecular sciences*, 23(18).

Waghela BN, et al. (2021) Upregulation of NOX-2 and Nrf-2 Promotes 5-Fluorouracil Resistance of Human Colon Carcinoma (HCT-116) Cells. *Biochemistry. Biokhimiia*, 86(3), 262.

Kyca T, et al. (2021) Insight into Bortezomib Focusing on Its Efficacy against P-gp-Positive MDR Leukemia Cells. *International journal of molecular sciences*, 22(11).

Cagala M, et al. (2020) Development of Resistance to Endoplasmic Reticulum Stress-Inducing Agents in Mouse Leukemic L1210 Cells. *Molecules (Basel, Switzerland)*, 25(11).

Šereš M, et al. (2020) Overexpression of GRP78/BiP in P-Glycoprotein-Positive L1210 Cells is Responsible for Altered Response of Cells to Tunicamycin as a Stressor of the Endoplasmic Reticulum. *Cells*, 9(4).

Durrant DE, et al. (2020) A dual PI3 kinase/mTOR inhibitor BEZ235 reverses doxorubicin resistance in ABCB1 overexpressing ovarian and pancreatic cancer cell lines. *Biochimica et biophysica acta. General subjects*, 1864(6), 129556.

Kontar S, et al. (2020) Cell Death Effects Induced by Sulforaphane and Allyl Isothiocyanate on P-Glycoprotein Positive and Negative Variants in L1210 Cells. *Molecules (Basel, Switzerland)*, 25(9).

Kubířková J, et al. (2019) Screening of Phenanthroquinolizidine Alkaloid Derivatives for Inducing Cell Death of L1210 Leukemia Cells with Negative and Positive P-glycoprotein

Expression. *Molecules* (Basel, Switzerland), 24(11).

Hemming ML, et al. (2019) Enhancer Domains in Gastrointestinal Stromal Tumor Regulate KIT Expression and Are Targetable by BET Bromodomain Inhibition. *Cancer research*, 79(5), 994.

Elefantova K, et al. (2018) Detection of the Mitochondrial Membrane Potential by the Cationic Dye JC-1 in L1210 Cells with Massive Overexpression of the Plasma Membrane ABCB1 Drug Transporter. *International journal of molecular sciences*, 19(7).

Einarsdottir BO, et al. (2018) A patient-derived xenograft pre-clinical trial reveals treatment responses and a resistance mechanism to karonudib in metastatic melanoma. *Cell death & disease*, 9(8), 810.

Bohacova V, et al. (2018) Triorganotin Derivatives Induce Cell Death Effects on L1210 Leukemia Cells at Submicromolar Concentrations Independently of P-glycoprotein Expression. *Molecules* (Basel, Switzerland), 23(5).

Xia YQ, et al. (2018) SIRT6 Depletion Sensitizes Human Hepatoma Cells to Chemotherapeutics by Downregulating MDR1 Expression. *Frontiers in pharmacology*, 9, 194.

Nyquist MD, et al. (2017) Exploiting AR-Regulated Drug Transport to Induce Sensitivity to the Survivin Inhibitor YM155. *Molecular cancer research : MCR*, 15(5), 521.

Dubach JM, et al. (2017) Quantitating drug-target engagement in single cells in vitro and in vivo. *Nature chemical biology*, 13(2), 168.

Cao W, et al. (2017) The Xenobiotic Transporter Mdr1 Enforces T Cell Homeostasis in the Presence of Intestinal Bile Acids. *Immunity*, 47(6), 1182.