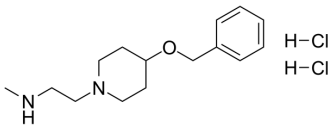
MS049 dihydrochloride

Cat. No.:	HY-100360A
CAS No.:	2095432-59-8
Molecular Formula:	$C_{15}H_{26}Cl_2N_2O$
Molecular Weight:	321.29
Target:	Histone Methyltransferase
Pathway:	Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

MS049 dihydrochloride is a potent, selective, and cell-active dual inhibitor of PRMT4 and PRMT6 with IC_{50}s of 34 nM and 43 nM, respectively. MS049 dihydrochloride reduces levels of Med12me2a and H3R2me2a in HEK293 cells. MS049 dihydrochloride is not toxic and does not affect the growth of HEK293 cells[1].

In Vitro

MS049 dihydrochloride (0.1-10 μM; 20 hours) reduces the H3R2me2a mark in HEK293 cells in a concentration dependent manner (IC_{50}=0.97±0.05 μM)[1].

MS049 dihydrochloride (0.1-100 μM; 72 hours) inhibits endogenous PRMT4 methyltransferase activity in a concentration dependent manner resulting in reduced levels of cellular asymmetric arginine dimethylation of Med12 (Med12-Rme2a, IC_{50} =1.4±0.1 μM) in HEK293 cells[1].

MS049 dihydrochloride is selective for PRMT4 and PRMT6 over a broad range of epigenetic modifiers, including other PRMTs, PKMTs, DNMTs, KDMs, and methyllysine/methylarginine reader proteins, and non-epigenetic targets[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	HEK293 cells
Concentration:	0.1, 1, 10 μM
Incubation Time:	20 hours
Result:	Reduced the H3R2me2a mark in HEK293 cells in a concentration dependent manner (IC_{50} =0.97±0.05 μM).

Western Blot Analysis[1]

Cell Line:	HEK293 cells
Concentration:	0.1, 1, 10, 100 μM
Incubation Time:	72 hours
Result:	Reduced levels of cellular asymmetric arginine dimethylation of Med12 (Med12-Rme2a, IC_{50}=1.4±0.1 μM) in HEK293 cells.

REFERENCES

[1]. Shen Y et al. Discovery of a Potent, Selective, and Cell-Active Dual Inhibitor of Protein Arginine Methyltransferase 4 and Protein Arginine Methyltransferase 6. J Med Chem. 2016 Oct 13;59(19):9124-9139.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA