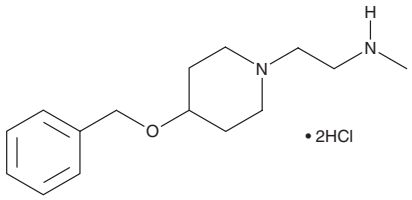
PRODUCT INFORMATION

MS049 (hydrochloride)

Item No. 18348

CAS Registry No.:	2095432-59-8
Formal Name:	N-methyl-4-(phenylmethoxy)-1-piperidineethanamine, dihydrochloride
MF:	$C_{15}H_{24}N_2O \bullet 2HCl$
FW:	321.3
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MS049 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the MS049 (hydrochloride) in the solvent of choice. MS049 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of MS049 (hydrochloride) in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of MS049 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of MS049 (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

MS049 is a potent and selective inhibitor of PRMT4 (IC_{50} = 34 nM) and PRMT6 (IC_{50} = 43 nM).[1] It is less active against additional type I PRMTs (IC_{50}s = >130, >220, and 1.6 µM for PRMT1, PRMT3, and PRMT8, respectively) and displays no inhibition against type II or type III PRMTs nor any additional methyltransferases or nonepigenetic targets tested.[1] MS049 has been shown to reduce the H3R2me2a mark in HEK293 cells with an IC_{50} value of 0.97 µM and also, unexpectedly, to reduce H4R3me2a in HEK293 cells.[1] For more information on MS049 please visit the Structural Genomics Consortium (SGC). The negative control, MS049N, for MS049 is also available exclusively through the SGC.

Reference

1. Shen, Y., Szewczyk, M. M., Eram, M. S., *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).

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