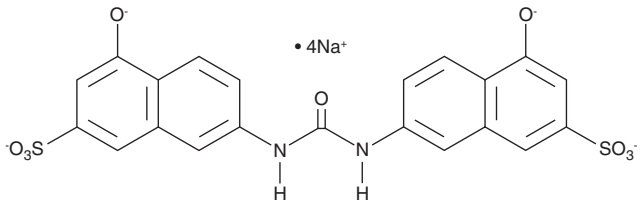
PRODUCT INFORMATION

AMI-1 (sodium salt)

Item No. 13965

Formal Name:	7,7'-(carbonylbis(azanediyl))*bis*(4-oxidonaphthalene-2-sulfonate), sodium salt
Synonym:	Arginine N-Methyltransferase Inhibitor-1
MF:	$C_{21}H_{12}N_2O_9S_2 \bullet 4Na$
FW:	592.4
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

AMI-1 (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the AMI-1 (sodium salt) in water. The solubility of AMI-1 (sodium salt) in water is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

AMI-1 is a cell permeable inhibitor of PRMTs. It inhibits both yeast Type I arginine methyltransferase Hmt1p and human PRMT1 (IC_{50} = 3.0 and 8.8 µM, respectively).[1] AMI-1 also effectively blocks the activity of PRMTs 3, 4, and 6 but not that of either SET (Sub39H1, Suv39H2, SET7) or non-SET (DOT1) lysine methyltransferases.[1] The mechanism of inhibition of PRMTs by AMI-1 involves blocking peptide-substrate binding.[2] AMI-1 also inhibits HIV-1 reverse transcriptase (IC_{50} = 5.0 µM).[3]

References

1. Cheng, D., Yadav, N., King, R.W., *et al.* Small molecule regulators of protein arginine methyltransferases. *J. Biol. Chem.* **279(23)**, 23892-23899 (2004).
2. Feng, Y., Xie, N., Wu, J., *et al.* Inhibitory study of protein arginine methyltransferase 1 using a fluorescent approach. *Biochem. Biophys. Res. Commun.* **379(2)**, 567-572 (2009).
3. Skillman, A.G., Maurer, K.W., Roe, D.C., *et al.* A novel mechanism for inhibition of HIV-1 reverse transcriptase. *Bioorg. Chem.* **30(6)**, 443-458 (2002).

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