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Data Sheet

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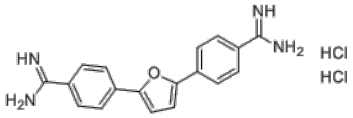
Product Name	:	Furamidine dihydrochloride
Cat. No.	:	PC-35608
CAS No.	:	55368-40-6
Molecular Formula	:	$C_{18}H_{18}Cl_2N_4O$
Molecular Weight	:	377.269
Target	:	Histone Methyltransferase (HMTase)
Solubility	:	10 mM in DMSO



Biological Activity

Furamidine dihydrochloride (NSC305831, DB75) is an inhibitor of tyrosyl-DNA phosphodiesterase (**Tdp1**), also is a selective protein arginine methyltransferase 1 (**PRMT1**) inhibitor with IC50 of 9.4 uM.
Furamidine dihydrochloride exhibits selectivity over PRMT5, PRMT6 and CARM1 (>15-fold); binds duplex DNA in the DNA minor groove selectively at AT rich sites [(A/T)4].
Furamidine can also intercalate between GC base pairs of duplex DNA, bind CTG-CAG repeat DNA with nanomolar affinity.
Furamidine dihydrochloride synergistically suppresses murine lupus nephritis in vivo combined with Irinotecan.
Furamidine dihydrochloride effectively inhibits intracellular PRMT1 activity and blocks cell proliferation in leukemia cell lines with different genetic lesions.

References

Antony S, et al. ***Nucleic Acids Res***. 2007;35(13):4474-84.

Jenquin JR, et al. ***ACS Chem Biol.*** 2018 Aug 27. doi: 10.1021/acschembio.8b00646.

Keil A, et al. ***Arthritis Rheumatol.*** 2015 Jul;67(7):1858-67.

Yan L, et al. ***J Med Chem.*** 2014 Mar 27;57(6):2611-22.

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