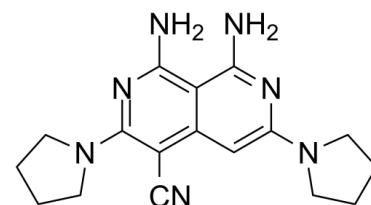


Data Sheet

Product Name:	SID 3712249
Cat. No.:	CS-5457
CAS No.:	522606-67-3
Molecular Formula:	C ₁₇ H ₂₁ N ₇
Molecular Weight:	323.40
Target:	Apoptosis; MicroRNA
Pathway:	Apoptosis; Epigenetics
Solubility:	DMSO : ≥ 30 mg/mL (92.76 mM)



BIOLOGICAL ACTIVITY:

SID 3712249 (MiR-544 Inhibitor 1) is an inhibitor of the biogenesis of microRNA-544 (miR-544). Target: MiR-544 MiR-544 represses expression of mTOR, promoting tumor cell survival in a hypoxic environment. Inhibition of miR-544 processing with MiR-544 Inhibitor 1 caused apoptosis in triple negative breast cancer cells in response to hypoxic stress, sensitized their response to 5-fluorouracil, and blocked their growth after transplantation into immunodeficient mice. SID 3712249 (MiR-544 Inhibitor 1) is believed to bind directly to the precursor miRNA, blocking production of the mature microRNA and resulting in decreased miR-544, HIF-1 α , and ATM transcripts. MiR-544 Inhibitor 1 was as selective and 25-fold more potent than a 2'-O-methyl RNA antagomir.

References:

[1]. Zhi Q, et al. Oncogenic miR-544 is an important molecular target in gastric cancer. Anticancer Agents Med Chem. 2013 Feb;13(2):270-5.

CAIndexNames:

2,7-Naphthyridine-4-carbonitrile, 1,8-diamino-3,6-di-1-pyrrolidinyl-

SMILES:

NC1=C2C(C=C(N3CCCC3)N=C2N)=C(C#N)C(N4CCCC4)=N1

Caution: Product has not been fully validated for medical applications. For research use only.

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