

Product Name: SGI 1027

Catalog No.: 5155

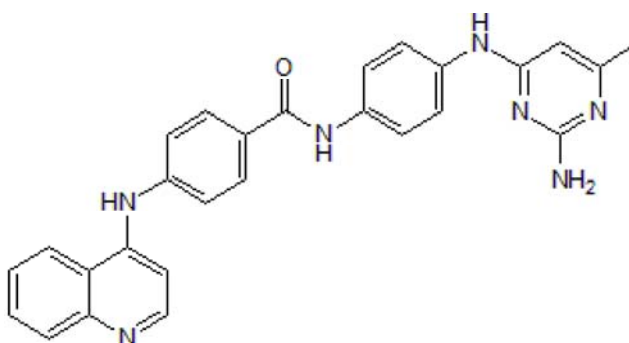
Batch No.: 1

CAS Number: 1020149-73-8

IUPAC Name: *N*-[4-[(2-Amino-6-methyl-4-pyrimidinyl)amino]phenyl]-4-(4-quinolinylamino)benzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₂₃N₇O
Batch Molecular Weight: 461.52
Physical Appearance: Off White solid
Solubility: DMSO to 50 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 70.27 | 5.02 | 21.24 |
| Found | 69.91 | 4.99 | 21.22 |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

DNA methyltransferase inhibitor. Inhibits the mammalian DNA methyltransferases DNMT3B, DNMT3A and DNMT1 (IC₅₀ values are 7.5, 8 and 12.5 μM with Poly(dI-dC) as the substrate). Reactivates silenced tumor suppressor genes by reducing CpG island hypermethylation.

Physical and Chemical Properties:

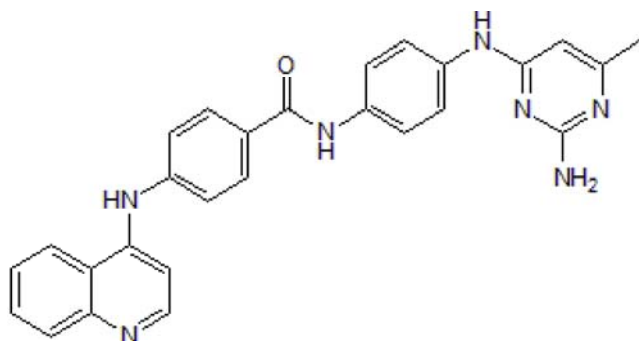
Batch Molecular Formula: C₂₇H₂₃N₇O

Batch Molecular Weight: 461.52

Physical Appearance: Off White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

García-Domínguez et al (2013) Synthetic approaches to DNMT inhibitor SGI-1027 and effects on the U937 leukemia cell line. *Bioorg.Med.Chem.Lett.* **23** 1631. PMID: 23402879.

Datta et al (2009) A new class of quinoline-based DNA hypomethylating agents reactivates tumor suppressor genes by blocking DNA methyltransferase 1 activity and inducing its degradation. *Cancer Res.* **69** 4277. PMID: 19417133.

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