

Certificate of Analysis

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Product Name: Sirtinol

Catalog No.: 3521

Batch No.: 1

CAS Number: 410536-97-9

IUPAC Name: 2-[[[(2-Hydroxy-1-naphthalenyl)methylene]amino]-N-(1-phenylethyl)benzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{26}H_{22}N_2O_2 \cdot \frac{1}{4}H_2O$

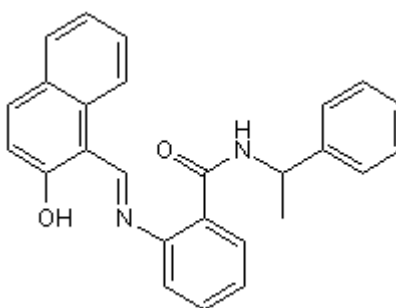
Batch Molecular Weight: 398.97

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.2% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	78.27	5.68	7.02
Found	78.09	5.55	7.33

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

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Description:

Cell-permeable, selective sirtuin deacetylase inhibitor (IC₅₀ values are 38, 68 and 131 μM at SIRT2, Sir2p and SIRT1 respectively) that has no effect on HDAC1 activity. Significantly decreases growth and viability of PCa and HEK293T cells in vitro.

Physical and Chemical Properties:

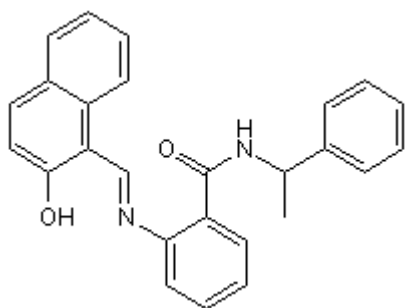
Batch Molecular Formula: C₂₆H₂₂N₂O₂·¼H₂O

Batch Molecular Weight: 398.97

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Grozinger et al (2001) Identification of a class of small molecule inhibitors of the sirtuin family of NAD-dependent deacetylases by phenotypic screening. *J.Biol.Chem.* **276** 38837. PMID: 11483616.

Mai et al (2005) Design, synthesis, and biological evaluation of sirtinol analogues as class III histone/protein deacetylase (sirtuin) inhibitors. *J.Med.Chem.* **48** 7789. PMID: 16302818.

Kahyo et al (2008) A novel chalcone polyphenol inhibits the deacetylase activity of SIRT1 and cell growth in HEK293T cells. *J.Pharmacol.Sci.* **108** 364. PMID: 19008647.

Jung-Hynes et al (2009) Role of sirtuin histone deacetylase SIRT1 in prostate cancer. A target for prostate cancer management via its inhibition? *J.Biol.Chem.* **284** 3823. PMID: 19075016.

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 100 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.

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