

Certificate of Analysis

Print Date: Oct 9th 2014

Product Name: EX 527

Catalog No.: 2780 Batch No.: 3

CAS Number: IUPAC Name:

49843-98-3 6-Chloro-2,3,4,9-tetrahydro-1*H*-carbazole-1-carboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility:

Storage: Batch Molecular Structure:



 H_2N

2. ANALYTICAL DATA

HPLC: ¹H NMR: Mass Spectrum: Microanalysis:

Shows 99.2% purity Consistent with structure Consistent with structure

Carbon Hydrogen Nitrogen

Theoretical	62.78	5.27	11.26
Found	62.7	5.27	11.18

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





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Description:

Selective inhibitor of SIRT1 that does not inhibit histone deacetylase (HDAC) or other sirtuin deacetylase family members (IC_{50} values are 98, 19600, 48700, > 100000 and > 100000 nM for SIRT1, SIRT2, SIRT3, HDAC and NADase respectively). Enhances p53 acetylation in response to DNA damaging agents.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₃H₁₃ClN₂O Batch Molecular Weight: 248.71 Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°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 75 mM ethanol to 50 mM

When purchsed as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Napper et al (2005) Discovery of indoles as potent and selective inhibitors of the deacetylase SIRT1. J.Med.Chem. 48 8045. PMID: 16335928.

Solomon et al (2006) Inhibition of SIRT1 catalytic activity increases p53 acetylation but does not alter cell survival following DNA damage. Mol.Cell.Biol. 26 28. PMID: 16354677.

Zhao *et al* (2013) The 2.5 Å crystal structure of the SIRT1 catalytic domain bound to nicotinamide adenine dinucleotide (NAD+) and an indole (EX527 analogue) reveals a novel mechanism of histone deacetylase inhibition. J.Med.Chem. **56** 963. PMID: 23311358.

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