

Product Name: Nutlin-3

Catalog No.: 3984

Batch No.: 1

CAS Number: 548472-68-0

IUPAC Name: (±)-4-[4,5-Bis(4-chlorophenyl)-2-(2-isopropoxy-4-methoxy-phenyl)-4,5-dihydro-imidazole-1-carbonyl]-piperazin-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{30}H_{30}Cl_2N_4O_4 \cdot \frac{1}{2}H_2O$

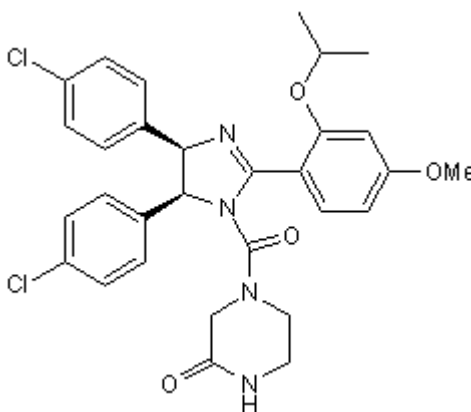
Batch Molecular Weight: 590.5

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: $R_f = 0.31$ (Chloroform:Methanol [95:5])

HPLC: Shows 98.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.02	5.29	9.49
Found	60.78	5.11	9.46

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Description:

MDM2 antagonist; inhibits the MDM2-p53 interaction (IC₅₀ = 0.09 μM) and activates p53. Antiproliferative agent; induces apoptosis in cancer cells.

Physical and Chemical Properties:

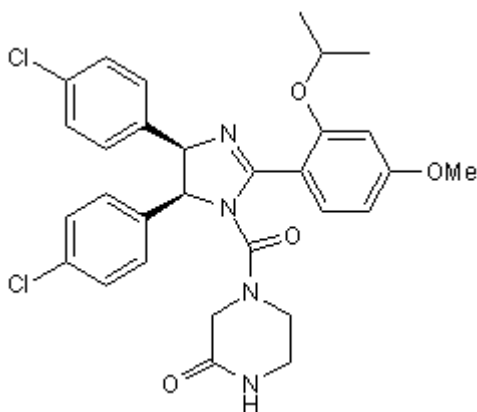
Batch Molecular Formula: C₃₀H₃₀Cl₂N₄O₄·½H₂O

Batch Molecular Weight: 590.5

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol 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.

References:

Vassilev *et al* (2004) In vivo activation of the p53 pathway by small-molecule antagonists of MDM2. *Science* **303** 844. PMID: 14704432.

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