

Certificate of Analysis

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Product Name: Mdivi 1

Catalog No.: 3982

Batch No.: 2

CAS Number: 338967-87-6

IUPAC Name: 3-(2,4-Dichloro-5-methoxyphenyl)-2,3-dihydro-2-thioxo-4(1H)-quinazolinone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₀Cl₂N₂O₂S

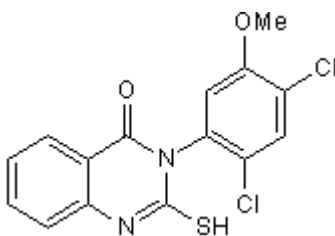
Batch Molecular Weight: 353.22

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	51.01	2.85	7.93
Found	51.13	2.93	7.79

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

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Description:

Selective inhibitor of Dnm1 GTPase ($IC_{50} = 1 - 10 \mu M$); attenuates Dnm1- and Drp1-mediated mitochondrial division. Inhibits mitochondrial outer membrane permeabilization (MOMP) and attenuates apoptosis. Inhibits autophagy.

Physical and Chemical Properties:

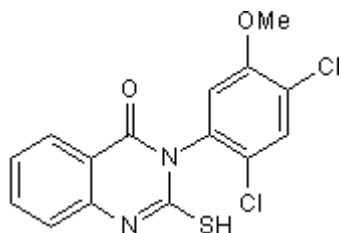
Batch Molecular Formula: $C_{15}H_{10}Cl_2N_2O_2S$

Batch Molecular Weight: 353.22

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at $-20^{\circ}C$

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 $45-60^{\circ}C$ 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 $-20^{\circ}C$ or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Galluzzi et al (2017) Pharmacological modulation of autophagy: therapeutic potential and persisting obstacles. *Nat.Rev.Drug.Discov.* . PMID: 28529316 .

Lackner et al (2010) Small molecule inhibitors of mitochondrial division: tools that translate basic biological research into medicine. *Chem.Biol.* **17** 57. PMID: 20142041.

Cassidy-Stone et al (2008) Chemical inhibition of the mitochondrial division dynamin reveals its role in Bax/Bak-dependent mitochondrial outer membrane permeabilization. *Develop.Cell* **14** 193.

Tanaka and Youle (2008) A chemical inhibitor of DRP1 uncouples mitochondrial fission and apoptosis. *Mol.Cell* **29** 409. PMID: 18313377.

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