Print Date: May 16th 2019

Certificate of Analysis

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Product Name: **Indisulam** **Catalog No.: 6782** **Batch No.: 1**

CAS Number: 165668-41-7

IUPAC Name: N^1-(3-Chloro-1*H*-indol-7-yl)-1,4-benzenedisulfonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{14}H_{12}ClN_3O_4S_2$

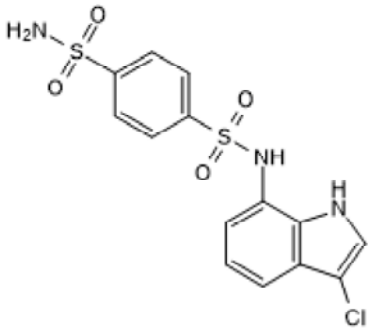
Batch Molecular Weight: 385.84

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	43.58	3.13	10.89
Found	43.22	3.12	10.87

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

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Product Information

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Description:

Acts as a molecular glue to induce proteosomal degradation of mRNA splicing factor RBM39 (also designated CAPERα, HCC1, FSAP59, and RNPC2), via binding to DCAF15. Acts as a pre-mRNA splicing modulator (SPLAMs; splicing inhibitor sulfonamides), causes aberrant pre-mRNA splicing. Suppresses proliferation of cancer cell lines. Reduces viability of HCT-116 cells (IC_{50} = 0.56 μM). Induces cell cycle arrest in the G_1 phase in cancer cell lines. Also a high affinity carbonic anhydrase isozyme XII (hCA XII) inhibitor (K_i = 3.0-5.7 nM).

Physical and Chemical Properties:

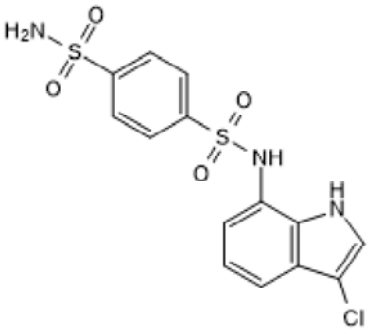
Batch Molecular Formula: $C_{14}H_{12}ClN_3O_4S_2$

Batch Molecular Weight: 385.84

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°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°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:

Di *et al* (2018) Function, clinical application, and strategies of Pre-mRNA splicing in cancer. Cell Death Differ. doi: 10.1038/s41418-. PMID: 30464224.

Han *et al* (2017) Anticancer sulfonamides target splicing by inducing RBM39 degradation via recruitment to DCAF15. Science ***28*** 356. PMID: 28302793.

Uehara *et al* (2017) Selective degradation of splicing factor CAPERa by anticancer sulfonamides. Nat.Chem.Biol. ***13*** 675. PMID: 28437394.

Vullo *et al* (2005) Carbonic anhydrase inhibitors. Inhibition of the transmembrane isozyme XII with sulfonamides-a new target for the design of antitumor and antiglaucoma drugs? Bioorg.Med.Chem.Lett. ***15*** 963. PMID: 15686894 .

Ozawa *et al* (2001) E7070, a novel sulphonamide agent with potent antitumour activity *in vitro* and *in vivo*. Eur.J.Cancer. ***37*** 2275. PMID: 11677118.

Owa *et al* (1999) Discovery of novel antitumor sulfonamides targeting G_1 phase of the cell cycle. J.Med.Chem. ***42*** 3789. PMID: 10508428.