bio-techne
TOCRIS

Print Date: Feb 26th 2024

Certificate of Analysis

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Product Name: **SB 218078** **Catalog No.: 2560** **Batch No.: 1**

CAS Number: 135897-06-2

IUPAC Name: 9,10,11,12-Tetrahydro- 9,12-epoxy-1*H*-diindolo[1,2,3-*fg*:3',2',1'-*kl*]pyrrolo[3,4-*i*][1,6]benzodiazocine-1,3(2*H*)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{15}N_3O_3$

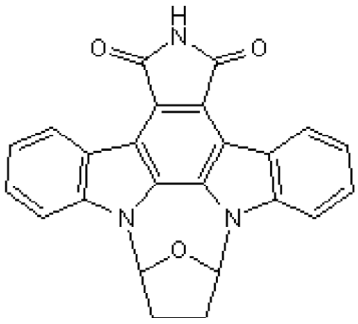
Batch Molecular Weight: 393.39

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.43 (Diethyl ether)

HPLC: Shows >98.3% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	73.27	3.84	10.68
Found	72.99	3.85	10.67

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

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Product Name: SB 218078 **Catalog No.:** 2560 **1**

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Description:

SB 218078 is an inhibitor of checkpoint kinase 1 (Chk1) that displays selectivity over other protein kinases (IC_{50} values are 15, 250 and 1000 nM for Chk1, cdc2 and PKC respectively). Abrogates G_2 cell cycle arrest caused by γ-irradiation and topoisomerase I inhibition. Potentiates cytotoxicity of DNA-damaging drugs, enhancing the efficacy of some chemotherapeutics.

Physical and Chemical Properties:

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Batch Molecular Weight: 393.39

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Minimum Purity: ≥98%

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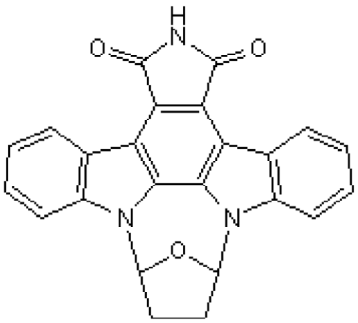

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

When purchased as a 1mg unit, this product is supplied in lyophilized form. It may appear as a solid, gel or film and 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Chen *et al* (2006) Checkpoint kinase 1-mediated phosphorylation of cdc25C and bad proteins are involved in antitumor effects of loratadine-induced G_2/M phase cell-cycle arrest and apoptosis. Mol.Carcinogenesis ***45*** 461.

Kawabe (2004) G_2 checkpoint abrogators as anticancer drugs. Mol.Cancer Ther. ***3*** 513. PMID: 15078995.

Jackson *et al* (2000) An indolocarbazole inhibitor of human checkpoint kinase (Chk1) abrogates cell cycle arrest caused by DNA damage. Cancer Res. ***60*** 566. PMID: 10676638.