

Product Name: SB 218078

Catalog No.: 2560

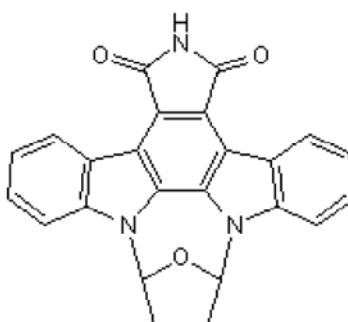
Batch No.: 1

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-*j*][1,6]benzodiazocine-1,3(2*H*)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₁₅N₃O₃
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
¹H 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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Description:

Inhibitor of checkpoint kinase 1 (Chk1) that displays selectivity over other protein kinases (IC₅₀ values are 15, 250 and 1000 nM for Chk1, cdc2 and PKC respectively). Abrogates G₂ 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:

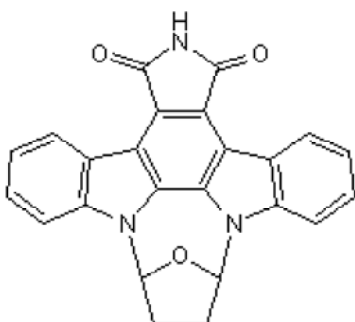
Batch Molecular Formula: C₂₄H₁₅N₃O₃

Batch Molecular Weight: 393.39

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

When purchased 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:

Chen *et al* (2006) Checkpoint kinase 1-mediated phosphorylation of cdc25C and bad proteins are involved in antitumor effects of loratadine-induced G₂/M phase cell-cycle arrest and apoptosis. *Mol.Carcinogenesis* **45** 461.

Kawabe (2004) G₂ 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.

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