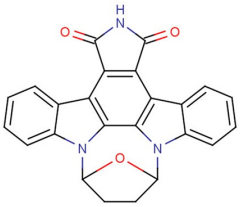
Data Sheet (Cat.No.T16848)

TargetMol
A DRUG SCREENING EXPERT

SB-218078

Chemical Properties



CAS No.:	135897-06-2
Formula:	C24H15N3O3
Molecular Weight:	393.39
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	SB-218078 is less potently inhibits Cdc2 (IC50: 250 nM) and PKC (IC50: 1000 nM). SB-218078 is a potent, ATP-competitive, and cell-permeable checkpoint kinase 1 inhibitor that inhibits Chk1 phosphorylation of cdc25C (IC50: 15 nM).
Targets(IC_{50})	Chk1: 15 nM Cdc2: 250 nM PKC: 1000 nM Apoptosis: None
In vitro	SB-218078 (500-625 μM; 96 hours; HeLa and HT-29 cells) treatment obviously enhances the cytotoxicity of DNA damage. SB-218078 (2.5-5 μM; 18 hours; HeLa cells) treatment abrogates G2 cell cycle arrest caused by either γ-irradiation or a topoisomerase I Topotecan inhibition [1].
In vivo	SB-218078 (5 mg/kg; intraperitoneal injection; for 16 hours; C57/Bl6 mice) treatment could promote a strong increase of γ-H2AX and apoptosis throughout the lymphoma [2].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.542 mL	12.71 mL	25.42 mL
5 mM	0.508 mL	2.542 mL	5.084 mL
10 mM	0.254 mL	1.271 mL	2.542 mL
50 mM	0.051 mL	0.254 mL	0.508 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Jackson JR, et al. An indolocarbazole inhibitor of human checkpoint kinase (Chk1) abrogates cell cycle arrest caused by DNA damage. Cancer Res. 2000 Feb 1;60(3):566-72.

2. Murga M, et al. Exploiting oncogene-induced replicative stress for the selective killing of Myc-driven tumors. Nat Struct Mol Biol. 2011 Nov 27;18(12):1331-1335.

3. Preet R, et al. Chk1 inhibitor synergizes quinacrine mediated apoptosis in breast cancer cells by compromising the base excision repair cascade. Biochem Pharmacol. 2016 Apr 1;105:23-33.

Inhibitors · Natural Compounds · Compound Libraries

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use.

Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481