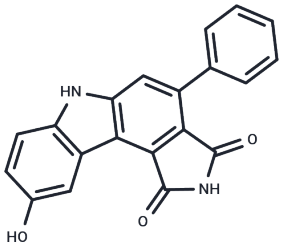
Data Sheet (Cat.No.T16446)

PD 407824

Chemical Properties



CAS No. : 622864-54-4

Formula: C20H12N2O3

Molecular Weight: 328.32

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	PD 407824 is a chemical BMP sensitiser that promotes increased cellular sensitivity to subthreshold amounts of BMP4.PD 407824 is a potent inhibitor of the checkpoint kinases Chk1 and WEE1 (IC50s: 47 and 97 nM, respectively).
Targets(IC50)	Chk,Wee1
In vitro	Inhibiting Wee1 and Chk1 kinases can lead to the disappearance of DNA damage-induced G2 checkpoint. Research findings indicate that PD 407824 selectively acts on CHK1 and WEE1, with IC50 values exceeding 3.4μM and 3.75μM for PKC and Cdk4, respectively[3].

Solubility Information

Solubility	DMSO: 100 mg/mL (304.58 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (12.18 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0458 mL	15.229 mL	30.4581 mL
5 mM	0.6092 mL	3.0458 mL	6.0916 mL
10 mM	0.3046 mL	1.5229 mL	3.0458 mL
50 mM	0.0609 mL	0.3046 mL	0.6092 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Palmer BD, et al. 4-Phenylpyrrolo[3,4-c]carbazole-1,3(2H,6H)-dione inhibitors of the checkpoint kinase WeeStructure-activity relationships for chromophore modification and phenyl ring substitution. J Med Chem. 2006 Aug 10;49(16):4896-911.

Feng L, et al. Discovery of a Small-Molecule BMP Sensitizer for Human Embryonic Stem Cell Differentiation. Cell Rep. 2016 May 31;15(9):2063-75.

Smaill JB,et al. Synthesis and structure-activity relationships of N-6 substituted analogues of 9-hydroxy-4-phenylpyrrolo[3,4-c]carbazole-1,3(2H,6H)-diones as inhibitors of Wee1 and Chk1 checkpoint kinases. Eur J Med Chem. 2008 Jun;43(6):1276-96.