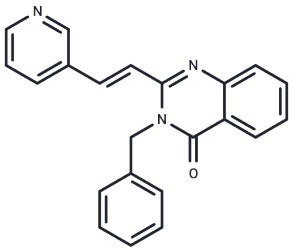
Data Sheet (Cat.No.T4656)

TargetMol

RAD51 Inhibitor B02

Chemical Properties



CAS No. : 1290541-46-6

Formula: C22H17N3O

Molecular Weight: 339.39

Storage: 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	RAD51 Inhibitor B02 (B02) (B02) is an inhibitor of human RAD51 with an IC50 of 27.4 μM.
Targets(IC50)	Apoptosis,DNA/RNA Synthesis
In vitro	RAD51 Inhibitor B02 selectively inhibits human RAD51 (IC50 = 27.4 μM) without affecting its E. coli homologue RecA (IC50 > 250 μM). Combining B02 with cisplatin exhibits a potent cytotoxic effect on human breast cancer cells [MDA-MB-231].'
In vivo	B02 substantially improves the therapeutic efficacy of cisplatin against tumor cells in vivo, demonstrating tolerability in mice at dosages up to 50 mg/kg without significant body weight reduction. Mice treated solely with B02 exhibited no tumor growth inhibition; however, those administered 4 mg/kg of cisplatin experienced a 33% reduction in tumor growth. Crucially, a combination treatment involving 50 mg/kg B02 and 4 mg/kg cisplatin resulted in a 66% decrease in tumor size[2].

Solubility Information

Solubility	DMSO: 41.67 mg/mL (122.78 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: 2 mg/mL (5.89 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	2.9465 mL	14.7323 mL	29.4646 mL
5 mM	0.5893 mL	2.9465 mL	5.8929 mL
10 mM	0.2946 mL	1.4732 mL	2.9465 mL
50 mM	0.0589 mL	0.2946 mL	0.5893 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

Huang F, et al. Identification of specific inhibitors of human RAD51 recombinase using high-throughput screening. ACS Chem Biol. 2011 Jun 17;6(6):628-35.

Huang F, et al. A small molecule inhibitor of human RAD51 potentiates breast cancer cell killing by therapeutic agents in mouse xenografts. PLoS One. 2014 Jun 27;9(6):e100993.