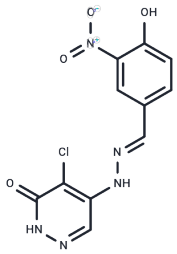
Data Sheet (Cat.No.T60753)

TargetMol

L82

Chemical Properties



CAS No. : 329227-30-7

Formula: C11H8ClN5O4

Molecular Weight: 309.67

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	L82 is a DNA ligase 1 (DNA Lig1) inhibitor (hLig1 IC50=12 μM) that is selective and non-competitive.L82 expresses anti-proliferative activity against breast cancer cells.
Targets(IC50)	DNA,DNA/RNA Synthesis
In vitro	L82 (0-50 μM; 6 d) reduced the proliferation of a normal breast epithelial cell line MCF10A and the breast cancer cell lines MCF7, HeLa, and HCT116 in a concentration-dependent manner.[2] L82 (50 μM; 0-48 h) shows cytostatic activity due to activation of the G1/S checkpoint in MCF7 cells.[2]' Revised: L82 (0-50 μM; 6 d) concentration-dependently reduced proliferation in the normal breast epithelial cell line MCF10A and the breast cancer cell lines MCF7, HeLa, and HCT116, while L82 (50 μM; 0-48 h) exhibited cytostatic activity through activation of the G1/S checkpoint in MCF7 cells.[2]

Solubility Information

Solubility	DMSO: 6 mg/mL (19.38 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: 2.08 mg/mL (6.72 mM),Suspension. 10% DMSO+90% Saline: < 2.08 mg/mL (6.72 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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	3.2292 mL	16.1462 mL	32.2924 mL
5 mM	0.6458 mL	3.2292 mL	6.4585 mL
10 mM	0.3229 mL	1.6146 mL	3.2292 mL
50 mM	0.0646 mL	0.3229 mL	0.6458 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

Howes TRL, et al. Structure-activity relationships among DNA ligase inhibitors: Characterization of a selective uncompetitive DNA ligase I inhibitor. DNA Repair (Amst). 2017;60:29-39.
Chen X, et al. Rational design of human DNA ligase inhibitors that target cellular DNA replication and repair. Cancer Res. 2008;68(9):3169-3177.
Stowers RS, et al. The 82F late puff contains the L82 gene, an essential member of a novel gene family. Dev Biol. 1999;213(1):116-130.

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