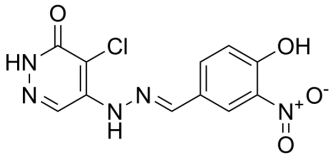
L82

Cat. No.:	HY-15587
CAS No.:	329227-30-7
Molecular Formula:	$C_{11}H_8ClN_5O_4$
Molecular Weight:	309.67
Target:	DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (107.63 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	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

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

L82 is a selective and uncompetitive DNA ligase 1 (DNA Lig1) inhibitor (hLig1 IC_{50}=12 μM). L82 shows anti-proliferative activity to breast cancer cells[1][2].

In Vitro

L82 (0-50 μM; 6 d) shows anti-proliferative activity to breast cancer cells[2].
L82 (50 μM; 0-48 h) shows cytostatic activity due to activation of the G1/S checkpoint in MCF7 cells[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[2]

Cell Line:	MCF10A, MCF7, HCT116, and HeLa cells
Concentration:	0-50 μM
Incubation Time:	6 days
Result:	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.

Cell Cycle Analysis[2]

Cell Line:	MCF7 cells
Concentration:	50 μM
Incubation Time:	0-48 hours
Result:	Showed a transient accumulation of cells at G2/M after 12 h, then showed an accumulation at G0/G1 that peaked after 24 h. Decreased in the S phase cell in accompany with the increase in the G0/G1 phase.

REFERENCES

[1]. Howes TRL, et al. Structure-activity relationships among DNA ligase inhibitors: Characterization of a selective uncompetitive DNA ligase I inhibitor. DNA Repair (Amst). 2017 Dec;60:29-39.

[2]. Chen X, et al. Rational design of human DNA ligase inhibitors that target cellular DNA replication and repair. Cancer Res. 2008 May 1;68(9):3169-77.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA