TDP1 Inhibitor-2

Cat. No.: HY-147750

CAS No.: 859142-95-3

Molecular Formula: $C_{25}H_{14}Cl_2O_5$

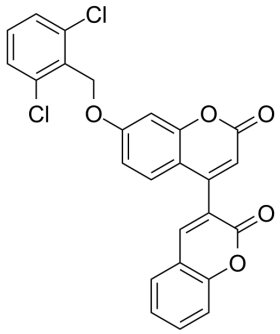
Molecular Weight: 465.28

Target: Phosphodiesterase (PDE)

Pathway: Metabolic Enzyme/Protease

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 : 8.33 mg/mL (17.90 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1492 mL	10.7462 mL	21.4924 mL
	5 mM	0.4298 mL	2.1492 mL	4.2985 mL
	10 mM	0.2149 mL	1.0746 mL	2.1492 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 0.83 mg/mL (1.78 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

TDP1 Inhibitor-2 (compound 5) is a potent inhibitor for TDP1 (tyrosyl-DNA phosphodiesterase 1), with an IC_{50} of 99 nM. TDP1 Inhibitor-2 also can inhibit SCAN1 (spinocerebellar ataxia syndrome with axonal neuropathy), with an IC_{50} of 3.5 μM[1].

IC_{50} & Target

IC_{50}: 0.099 ± 0.044 μM (TDP1), 3.5 ± 2.3 μM (SCAN1)[1]

In Vitro

TDP1 Inhibitor-2 (compound 5) shows potent anti-TDP1 activity, low cytotoxicity and synergism with topotecan, an established Top1 anticancer agent[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Mamontova EM, et al. Identification of novel inhibitors for the tyrosyl-DNA-phosphodiesterase 1 (Tdp1) mutant SCAN1 using virtual screening. Bioorg Med Chem. 2020 Jan 1;28(1):115234.

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