CLK1-IN-2

Cat. No.: HY-152219

Molecular Formula: $C_{16}H_{12}Cl_2N_2O_2S$

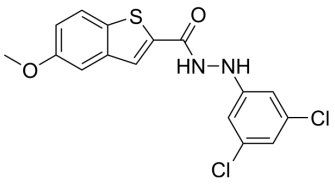
Molecular Weight: 367.25

Target: CDK

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 : 100 mg/mL (272.29 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7229 mL	13.6147 mL	27.2294 mL
5 mM	0.5446 mL	2.7229 mL	5.4459 mL
10 mM	0.2723 mL	1.3615 mL	2.7229 mL

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

BIOLOGICAL ACTIVITY

Description

CLK1-IN-2 is metabolically stable Clk1 inhibitor. CLK1-IN-2 has selectivity for Clk1 with an IC_{50} value of 1.7 nM. CLK1-IN-2 can be used for the research of tumour, Duchenne's muscular dystrophy and viral infections such as HIV-1 and influenza[1].

IC_{50} & Target

IC50: 1.7 nM (Clk1)[1].

In Vitro

CLK1-IN-2 (Compound 27a) has selectivity for Clk1 with an IC_{50} value of 1.7 nM[1].
CLK1-IN-2 shows long metabolic half-lives of 6.4 h[1].
CLK1-IN-2exhibits a GI50 of 3.4 μM in T24 cancer cells[1].
CLK1-IN-2 shows a cellular K_i valiue of 0.051 μM in NanoBRET cellular Clk1 engagement assay[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	Human dermal fibroblasts
Concentration:	15 μM

Incubation Time:	2 days
Result:	Not affected the proliferation of normal human cells such as fibroblasts.

REFERENCES

[1]. Dalia S El-Gamil, et al. Discovery of novel 5-methoxybenzothiophene hydrazides as metabolically stable Clk1 inhibitors with high potency and unprecedented Clk1 isoenzyme selectivity. Eur J Med Chem. 2022 Dec 15;247:115019.

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