CCI-007

Cat. No.: HY-122698

CAS No.: 939228-52-1

Molecular Formula: $C_{15}H_{16}N_2O_5S$

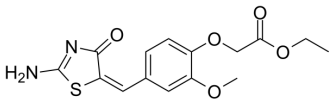
Molecular Weight: 336.36

Target: Apoptosis

Pathway: Apoptosis

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 83.33 mg/mL (247.74 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9730 mL	14.8650 mL	29.7301 mL
	5 mM	0.5946 mL	2.9730 mL	5.9460 mL
	10 mM	0.2973 mL	1.4865 mL	2.9730 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.18 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CCI-007 is a small molecule with cytotoxic activity against infant leukemia with MLL rearrangements, with IC_{50} values of 2.5-6.2 μM in sensitive cells[1].

In Vitro

CCI-007 is a selective inhibitor of MLL-r, CALM-AF10 and SET-NUP214 leukemia[1].
Following CCI-007 treatment for 24h, significant mitochondrial depolarization was observed in PER-485 cells as evidenced by a shift in JC-1 signal. CCI-007 alters the characteristic MLL-r gene expression signature in sensitive cells with downregulation of the expression of HOXA9, MEIS1, CMYC and BCL2[1].
Resistance to CCI-007 can occur by upregulation of MLL target gene expression[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	PER-485, MOLM-13, MV4;11 cells.

Concentration:	5 μM.
Incubation Time:	24 h.
Result:	Induced apoptosis.

REFERENCES

[1]. Klaartje Somers, et al. CCI-007, a novel small molecule with cytotoxic activity against infant leukemia with MLL rearrangements. Oncotarget. 2016 Jul 19;7(29):46067-46087.

[2]. Klaartje Somers, et al. A novel small molecule that kills a subset of MLL-rearranged leukemia cells by inducing mitochondrial dysfunction. Oncogene. 2019 May;38(20):3824-3842.

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