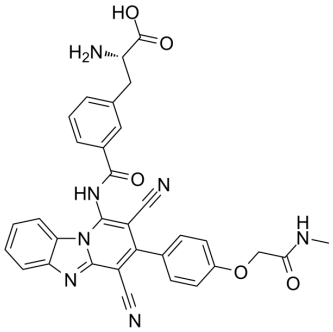
KMH-233

Cat. No.:	HY-120139		
CAS No.:	1941174-13-5		
Molecular Formula:	$C_{32}H_{25}N_7O_5$		
Molecular Weight:	587.58		
Target:	Others		
Pathway:	Others		
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 (170.19 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.7019 mL	8.5095 mL	17.0190 mL
	5 mM	0.3404 mL	1.7019 mL	3.4038 mL
	10 mM	0.1702 mL	0.8509 mL	1.7019 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.25 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (4.25 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

KMH-233, a potent, reversible and selective l-type amino acid transporter 1 (LAT1) inhibitor, inhibits the uptake of LAT1 substrate, l-leucin (IC_{50}=18 μM) as well as cell growth. KMH-233 significantly potentiates the efficacy of Bestatin and Cisplatin even at low concentrations (25 μM)[1].

In Vitro

KMH-233 is able to inhibit binding and transport of essential neutral amino acids and thus, inhibit the cell growth of cancer cells[1].

KMH-233 shows a significant reduction of cell growth with an IC_{50} of 124 μM[1].

KMH-233 is effective and able to potentiate the anti-proliferative efficacy of Bestatin (100 μM) and Cisplatin (100 μM) at a lower concentration of 25 μM, inhibiting cell growth 53% and 50%, respectively[1].

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

Cell Proliferation Assay[1]

Cell Line:	MCF-7 cells
Concentration:	0.5-1000 μM
Incubation Time:	72 hours
Result:	Showed a significant reduction of cell growth with an IC_{50} of 124 μM.

REFERENCES

[1]. Huttunen KM, et al. A Selective and Slowly Reversible Inhibitor of l-Type Amino Acid Transporter 1 (LAT1) Potentiates Antiproliferative Drug Efficacy in Cancer Cells. J Med Chem. 2016;59(12):5740-5751.

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