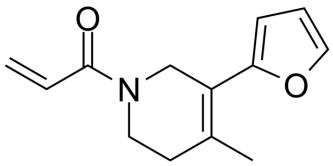
EN40

Cat. No.:	HY-122577
CAS No.:	2094547-67-6
Molecular Formula:	$C_{13}H_{15}NO_2$
Molecular Weight:	217.26
Target:	Aldehyde Dehydrogenase (ALDH)
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, stored under nitrogen * The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 100 mg/mL (460.28 mM; Need ultrasonic)
DMSO : ≥ 100 mg/mL (460.28 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent, Mass	1 mg	5 mg	10 mg
1 mM	4.6028 mL	23.0139 mL	46.0278 mL
5 mM	0.9206 mL	4.6028 mL	9.2056 mL
10 mM	0.4603 mL	2.3014 mL	4.6028 mL

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

BIOLOGICAL ACTIVITY

Description

EN40 is a potent, selective aldehyde dehydrogenase 3A1 (ALDH3A1) inhibitor as a covalent ligand, exhibits an IC_{50} value of 2 uM[1]

IC_{50} & Target

IC50: 2 uM (ALDH3A1)[1]

In Vitro

EN40 (10-1000 μM; 48 hours) shows inhibitory effecton ALDH3A1 activity and impairs A549 cell survival[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	A549 cells
Concentration:	10 μM; 100 μM; 1000 μM
Incubation Time:	48 hours

Result:	Inhibited A549 cells survival.

In Vivo

EN40 (intraperitoneal injection; 50mg/kg; from 14 days; once per day) exerts strong anti-tumorigenic effects in established A549 tumor xenografts, shows good tolerability with no body weight loss in mice[1].

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

Animal Model:	SCID mice with A549 cells[1]
Dosage:	50 mg/kg
Administration:	Intraperitoneal injection; 50mg/kg; from 14 days; once per day
Result:	Had strong anti-tumorigenic effects in tumor xenografts.

REFERENCES

[1]. Counihan JL,et al.Chemoproteomics-Enabled Covalent Ligand Screening Reveals ALDH3A1 as a Lung Cancer Therapy Target.ACS Chem Biol. 2018 Aug 17;13(8):1970-1977

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