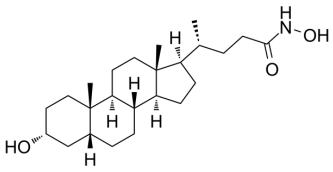
LCAHA

Cat. No.:	HY-120458
CAS No.:	117094-40-3
Molecular Formula:	$C_{24}H_{41}NO_3$
Molecular Weight:	391.59
Target:	Deubiquitinase
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 : 45 mg/mL (114.92 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5537 mL	12.7685 mL	25.5369 mL
	5 mM	0.5107 mL	2.5537 mL	5.1074 mL
	10 mM	0.2554 mL	1.2768 mL	2.5537 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 (5.31 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.31 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

LCAHA (LCA hydroxyamide) is a deubiquitinase USP2a inhibitor with IC_{50}s of 9.7 μM and 3.7μM in Ub-AMC Assay and Di-Ub Assay, respectively. LCAHA destabilizes Cyclin D1 and induces G0/G1 arrest by inhibiting deubiquitinase USP2a[1].

In Vitro

LCAHA inhibits HCT116^{wt} and HCT116 p53$^{-/-}$ colon cancer cells viability with GI_{50}s of 0.87±0.09 and 0.96±0.29μM, respectively, and the LD_{50}s of 27.8±3.9 and 26.5±0.1μM, respectively[1].

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

Cell Viability Assay[1]

Cell Line:	HCT116^{wt} and HCT116 p53$^{-/-}$ colon cancer cells

Concentration:	0.01, 0.1, 1, 10, and 100 μM
Incubation Time:	6 days
Result:	The GI_{50}s are 0.87±0.09 and 0.96±0.29 μM for $HCT116^{wt}$ and HCT116 $p53^{-/-}$ colon cancer cells, respectively.

REFERENCES

[1]. Katarzyna Magiera, et al. Lithocholic Acid Hydroxyamide Destabilizes Cyclin D1 and Induces G_0/G_1 Arrest by Inhibiting Deubiquitinase USP2a. Cell Chem Biol. 2017 Apr 20;24(4):458-470.e18.

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