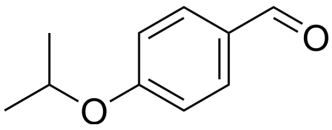
ALDH1A3-IN-3

Cat. No.:	HY-W017186
CAS No.:	18962-05-5
Molecular Formula:	$C_{10}H_{12}O_2$
Molecular Weight:	164.2
Target:	Aldehyde Dehydrogenase (ALDH)
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (609.01 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	6.0901 mL	30.4507 mL	60.9013 mL
	5 mM	1.2180 mL	6.0901 mL	12.1803 mL
	10 mM	0.6090 mL	3.0451 mL	6.0901 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 (15.23 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (15.23 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ALDH1A3-IN-3 (compound 16) is a potent inhibitor of ALDH1A3, with an IC_{50} of 0.26 μM. ALDH1A3-IN-3 is also a good ALDH3A1 substrate. ALDH1A3-IN-3 can be used for the research of prostate cancer[1].

IC_{50} & Target	ALDH3	ALDH1

REFERENCES

[1]. Ibrahim AIM, et, al. Expansion of the 4-(Diethylamino)benzaldehyde Scaffold to Explore the Impact on Aldehyde Dehydrogenase Activity and Antiproliferative Activity in Prostate Cancer. J Med Chem. 2022 Mar 10;65(5):3833-3848.

Caution: Product has not been fully validated for medical applications. For research use only.

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