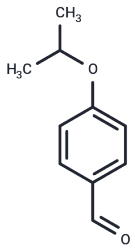
Data Sheet (Cat.No.T64347)

TargetMol

4-Isopropoxybenzaldehyde

Chemical Properties



CAS No. : 18962-05-5

Formula: C10H12O2

Molecular Weight: 164.2

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	4-Isopropoxybenzaldehyde (compound 16), a powerful ALDH1A3 inhibitor with an IC50 of 0.26 μM (cell free assay), serves as an effective ALDH3A1 substrate. But shows weak antiproliferative effect against PC3, LNCaP, and DU145 PCa cell lines with IC50>200 μM [1].
Targets(IC50)	Dehydrogenase
In vitro	ALDH1A3-IN-3 showed weak antiproliferative Effect against PC3, LNCaP, and DU145 PCa Cell Lines with IC50 >200μM[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (304.51 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (12.18 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.0901 mL	30.4507 mL	60.9013 mL
5 mM	1.218 mL	6.0901 mL	12.1803 mL
10 mM	0.609 mL	3.0451 mL	6.0901 mL
50 mM	0.1218 mL	0.609 mL	1.218 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.