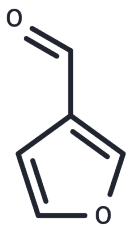
Data Sheet (Cat.No.T67590)

TargetMol

3-Furaldehyde

Chemical Properties



CAS No. : 498-60-2

Formula: C5H4O2

Molecular Weight: 96.08

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

Biological Description

Description	3-Furaldehyde is an inhibitor of polyphenol oxidase 2 and aldehyde oxidase 1 and can be used in biochemical experiments and drug synthesis.
Targets(IC50)	Others
In vitro	3-Furaldehyde is an atmospheric pollutant that is mainly derived from biomass combustion. Under ultraviolet light, it undergoes a photoisomerization reaction, converting the trans isomer into the cis isomer and reaching a photochemical equilibrium state. At the same time, 3-Furaldehyde also undergoes a photolysis reaction under higher energy ultraviolet light, undergoing a decarbonylation reaction to produce products such as furan, cyclopropene and acrylene. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (832.64 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: 3.3 mg/mL (34.35 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	10.408 mL	52.040 mL	104.0799 mL
5 mM	2.0816 mL	10.408 mL	20.816 mL
10 mM	1.0408 mL	5.204 mL	10.408 mL
50 mM	0.2082 mL	1.0408 mL	2.0816 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

Nihal Kuş, et al. Photoisomerization and photochemistry of matrix-isolated 3-furaldehyde. J Phys Chem A. 2010 Dec 2;114(47):12427-36.