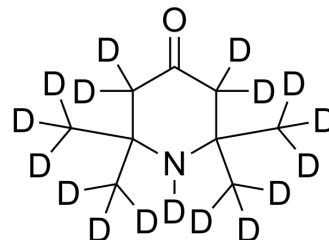


Triacetone-d₁₇

Cat. No.:	HY-N1131S		
CAS No.:	52168-48-6		
Molecular Formula:	C ₉ D ₁₇ NO		
Molecular Weight:	172.34		
Target:	Isotope-Labeled Compounds; Biochemical Assay Reagents		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (580.25 mM; Need ultrasonic and warming)
 Ethanol : 50 mg/mL (290.12 mM; Need ultrasonic and warming)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	5.8025 mL	29.0124 mL	58.0248 mL
	5 mM	1.1605 mL	5.8025 mL	11.6050 mL
	10 mM	0.5802 mL	2.9012 mL	5.8025 mL

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

BIOLOGICAL ACTIVITY

Description

Triacetone-d₁₇ (2,2,6,6-Tetramethyl-4-piperidone-d₁₇) is the deuterium labeled Triacetone. Triacetone has oral activity and can induce acute liver failure (ALF) in rats^{[1][2][3]}.

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

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

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.

[2]. Cao JP, et al. Triacetone formation in a bio-oil from fast pyrolysis of sewage sludge using acetone as the absorption solvent. *Bioresour Technol*. 2010 Jun;101(11):4242-5.

[3]. Ting Jiang, et al. Application of Bone Marrow Mesenchymal Stem Cells Effectively Eliminates Endotoxemia to Protect Rat from Acute Liver Failure Induced by Thioacetamide. *Tissue Eng Regen Med.* 2022 Apr;19(2):403-415.

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

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