Triacetonamine

Cat. No.: HY-N1131

CAS No.: 826-36-8

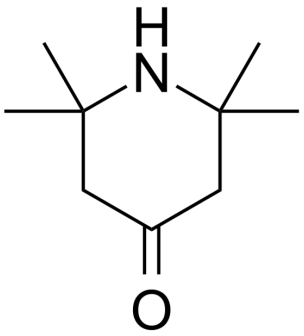
Molecular Formula: $C_9H_{17}NO$

Molecular Weight: 155.24

Target: Biochemical Assay Reagents

Pathway: Others

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (644.16 mM; Need ultrasonic)
Ethanol : 50 mg/mL (322.08 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	6.4416 mL	32.2082 mL	64.4164 mL
	5 mM	1.2883 mL	6.4416 mL	12.8833 mL
	10 mM	0.6442 mL	3.2208 mL	6.4416 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 (16.10 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (16.10 mM); Clear solution
3. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (16.10 mM); Clear solution
4. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (16.10 mM); Clear solution
5. Add each solvent one by one: 10% EtOH >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (16.10 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Triacetonamine (2,2,6,6-Tetramethyl-4-piperidone) is used as an intermediate for the synthesis of pharmaceutical products, pesticides and photostabilizers for polymers. Triacetonamine has oral activity and can induce acute liver failure (ALF) in rats [1][2].

In Vivo

Triacetonamine (Purchased from MCE; 200 mg, 300 mg, 400 mg/Kg/day; gavage; 2 days) shows typical hepatoenteropathology of ALF with 300 mg/Kg/day and 400 mg/Kg/day, while the group of 400 mg/Kg/day had higher mortality[2].

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

Animal Model:	Rats (half male and female, 6-8 weeks old, 200 ± 10 g)[2]
Dosage:	200 mg, 300 mg, 400 mg/Kg
Administration:	Gavage; daily; 2 days
Result:	Showed typical hepatoenteropathology of ALF with 300 mg/Kg/day and 400 mg/Kg/day, while the group of 400 mg/Kg/day had higher mortality.

CUSTOMER VALIDATION

- J Tissue Eng Regen Med. 2022 Feb 5.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. 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.

[2]. Cao JP, et al. Triacetonamine 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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA