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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
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3-Methyl-2-buten-1-ol

Cat. No.: HY-W013035

CAS No.: 556-82-1

Molecular Formula: $C_5H_{10}O$

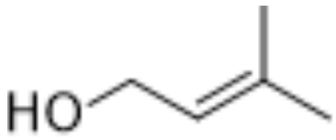
Molecular Weight: 86.13

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Pure form	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (1160.98 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	11.6098 mL	58.0491 mL	116.0982 mL
	5 mM	2.3220 mL	11.6098 mL	23.2196 mL
	10 mM	1.1610 mL	5.8049 mL	11.6098 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 (29.02 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (29.02 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (29.02 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

3-Methyl-2-buten-1-ol (MBO321) is an orally active endogenous metabolite found in pine trees and is used as a fragrance ingredient in cosmetics and detergents. 3-Methyl-2-buten-1-ol passes cell barrier. 3-Methyl-2-buten-1-ol reduces body weight in rats[1][2][3].

In Vitro

3-Methyl-2-buten-1-ol (100 μM, 120 min) pass the Caco-2 cell barrier quickly, with P_{app} of 37.3 μcm/s (recalculated donor concentration)[2].

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

In Vivo	3-Methyl-2-buten-1-ol (200-5000 ppm, drinking water, 90 days) decreases food and water consumption, body weight, food efficiency, and urinary volumer in rats[3]. 3-Methyl-2-buten-1-ol (50-600 mg/kg, gavage, days 6-19 post coitum (pc)) shows unscheduled death of 1 dam on day 19 pc, transient salivation in all dams immediately between days 6-19 pc, transient occurrence of abdominal position, and lacrimation and/or piloerection shortly in rats[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Liu Q, et al. Acid-catalyzed heterogeneous reaction of 3-methyl-2-buten-1-ol with hydrogen peroxide[J]. Journal of Environmental Sciences, 2015, 31: 89-97.

[2]. Heinlein A, et al. Transport of hop aroma compounds across Caco-2 monolayers. Food Funct. 2014 Nov;5(11):2719-30.

[3]. Api AM, et al. RIFM fragrance ingredient safety assessment, 3-methyl-2-butenyl acetate, CAS Registry Number 1191-16-8. Food Chem Toxicol. 2019 Dec;134 Suppl 1:110705.

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