2-Methylbutyrylcarnitine

Cat. No.: HY-112948

CAS No.: 256928-75-3

Molecular Formula: $C_{12}H_{23}NO_4$

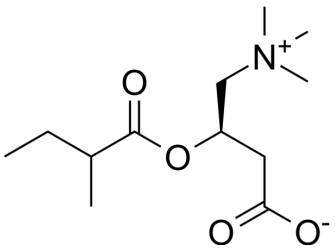
Molecular Weight: 245.32

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

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



SOLVENT & SOLUBILITY

In Vitro

H_2O : 125 mg/mL (509.54 mM; ultrasonic and warming and heat to 60°C)
DMSO : 100 mg/mL (407.63 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.0763 mL	20.3815 mL	40.7631 mL
5 mM	0.8153 mL	4.0763 mL	8.1526 mL
10 mM	0.4076 mL	2.0382 mL	4.0763 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 (10.19 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.19 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.19 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

2-Methylbutyrylcarnitine is a fatty acid metabolite. 2-Methylbutyrylcarnitine is found mainly in the blood and urine of humans and animals and is produced through the pyruvate carboxylation pathway. 2-Methylbutyrylcarnitine exhibits high level in the plasma of subjects with steatohepatitis (NASH) and can be used as an indicator for the diagnosis of metabolic diseases[1].

REFERENCES

[1]. Kalhan SC, et al. Plasma metabolomic profile in nonalcoholic fatty liver disease. Metabolism. 2011 Mar;60(3):404-13.

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