delta-Valerobetaine

Cat. No.: HY-114202

CAS No.: 6778-33-2

Molecular Formula: $C_8H_{17}NO_2$

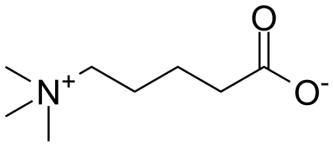
Molecular Weight: 159.23

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

H_2O : 125 mg/mL (785.03 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	6.2802 mL	31.4011 mL	62.8022 mL
	5 mM	1.2560 mL	6.2802 mL	12.5604 mL
	10 mM	0.6280 mL	3.1401 mL	6.2802 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (628.02 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

delta-Valerobetaine is a precursor of trimethylamine N-oxide (TMAO).

In Vitro

The levels of delta-valerobetaine were by far higher in ruminant than in non-ruminant meat and, among ruminants, cattle present higher levels of the substance than sheep and goat. The levels of delta-valerobetaine in milk of ruminants are much lower than in their meat. However, delta-valerobetaine content in milk of ruminants is noticeably higher than that observed in non-ruminant milk. It is showed that incubation of ruminal fluid with labeled N^{ε}-trimethyllysine leads to a rapid formation of labeled delta-valerobetaine[1].

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

REFERENCES

[1]. Servillo L, et al. Ruminant meat and milk contain δ-valerobetaine, another precursor of trimethylamine N-oxide (TMAO) like γ-butyrobetaine. Food Chem. 2018 Sep 15;260:193-199.

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