

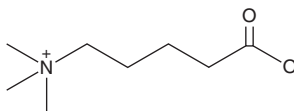
PRODUCT INFORMATION



δ-Valerobetaine

Item No. 37092

CAS Registry No.: 6778-33-2
Formal Name: 4-carboxy-N,N,N-trimethyl-1-butanaminium, inner salt
Synonym: δ-Aminovaleric Acid Betaine
MF: C₈H₁₇NO₂
FW: 159.2
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

δ-Valerobetaine is supplied as a solid. A stock solution may be made by dissolving the δ-valerobetaine in the solvent of choice, which should be purged with an inert gas. δ-Valerobetaine is sparingly soluble (1-10 mg/ml) in methanol.

Description

δ-Valerobetaine is a metabolite produced by various gut microbiota, including *S. typhimurium*, *B. longum*, and *Lactobacilli*.¹ It reduces the palmitate-dependent oxygen consumption rate (OCR) in glucose-, glutamine-, and pyruvate-deprived HepG2 cells when used at concentrations of 10 and 50 μM. *In vivo*, δ-valerobetaine (10 and 100 mg/kg) decreases hepatic mitochondrial long-chain acylcarnitine levels and enhances hepatic steatosis in fasted, but not fed, mice. It also increases visceral adipose tissue (VAT), brown adipose tissue (BAT), and subcutaneous white adipose tissue (WAT) weights in germ-free and conventional mice fed a Western diet. Plasma levels of δ-valerobetaine are positively correlated with visceral adipose tissue mass in humans.

Reference

1. Liu, K.H., Owens, J.A., Saeedi, B., *et al.* Microbial metabolite delta-valerobetaine is a diet-dependent obesogen. *Nat. Metab.* **3**(12), 1694-1705 (2021).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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