
Product Data Sheet

Product Name: Acetoacetic acid sodium salt

Cat. No.: GC35229

Chemical Properties

Cas. No. 623-58-5

SMILES CC(CC(O[Na])=O)=O

Formula $C_4H_5NaO_3$ M.Wt 124.07

Solubility Water: 50 mg/mL (403.00 mM) Storage Store at $-20^{\circ}C$, unstable in solution, ready to use.

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure

Background

Acetoacetic acid sodium salt is a metabolite of non-esterified fatty acids, involved in the development of human diabetes. Acetoacetic acid sodium salt induces oxidative stress to inhibit the assembly of very low density lipoprotein in bovine hepatocytes[1].

Acetoacetic acid sodium salt induces oxidative stress to inhibit the assembly of very low density lipoprotein in bovine hepatocytes[1]. Acetoacetic acid (0.6, 2.4, 4.8 mM) increases malondialdehyde (MDA) content in high-dose group (GH) group, decreases mRNA expression of Mn SOD, Cu/Zn SOD, and glutathione peroxidase (GSH-Px) in all groups, lowers catalase (CAT) mRNA expression in medial-dose group (GM), and GH groups. In addition, Acetoacetic acid down-regulates the mRNA expression of apolipoprotein B100 (ApoB100), apolipoprotein E (ApoE), and low density lipoprotein receptor (LDLR). Thus, VLDL assembly is decreased and triglyceride (TG) accumulation is increased in these bovine hepatocytes[1].

References:

[1]. Shi X, et al. Acetoacetic acid induces oxidative stress to inhibit the assembly of very

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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low density lipoprotein in bovine hepatocytes. J Dairy Res. 2016 Nov;83(4):442-446.

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