

## Acetoacetic acid sodium salt

## Chemical Properties

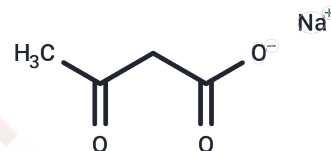
CAS No. : 623-58-5

Formula: C<sub>4</sub>H<sub>5</sub>NaO<sub>3</sub>

Molecular Weight: 124.07

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## Biological Description

Description	Acetoacetic acid sodium salt is a metabolite of non-esterified fatty acids, involved in the development of human diabetes.
Targets(IC50)	Others
In vitro	Acetoacetic acid sodium salt triggers oxidative stress, thereby impeding very-low-density lipoprotein (VLDL) assembly in bovine hepatocytes. This compound, at concentrations of 0.6, 2.4, and 4.8 mM, increases malondialdehyde (MDA) content in the high-dose group (GH), diminishes mRNA levels of Mn-SOD, Cu/Zn SOD, and glutathione peroxidase (GSH-Px) across all groups, and reduces catalase (CAT) mRNA expression in the medial-dose (GM) and GH groups. Furthermore, it suppresses mRNA expression of apolipoprotein B100 (ApoB100), apolipoprotein E (ApoE), and the low-density lipoprotein receptor (LDLR), leading to reduced VLDL assembly and heightened triglyceride (TG) accumulation in bovine hepatocytes.

## Solubility Information

Solubility	H2O: 50 mg/mL (403.00 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	8.060 mL	40.2998 mL	80.5997 mL
5 mM	1.612 mL	8.060 mL	16.1199 mL
10 mM	0.806 mL	4.030 mL	8.060 mL
50 mM	0.1612 mL	0.806 mL	1.612 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Shi X, et al. Acetoacetic acid induces oxidative stress to inhibit the assembly of very low density lipoprotein in bovine hepatocytes. J Dairy Res. 2016 Nov;83(4):442-446.

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