

## Acetoacetic acid sodium salt

## Chemical Properties

CAS No. : 623-58-5

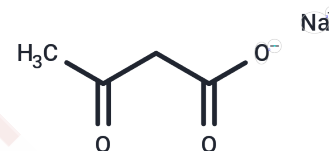
Formula: C<sub>4</sub>H<sub>5</sub>NaO<sub>3</sub>

Molecular Weight: 124.07

Store at low temperature

Storage: Powder: -20°C for 3 years

Actual storage temperature shall be subject to the COA.



## 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,Endogenous Metabolite
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	H <sub>2</sub> O: 101 mg/mL (814.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	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

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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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### 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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