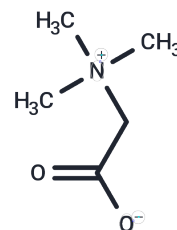


## Betaine

## Chemical Properties

CAS No. :	107-43-7
Formula:	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>
Molecular Weight:	117.15
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Betaine (trimethylglycine) is a methyl derivative of glycine first isolated from sugar beets. It has been shown to have potential benefits for fighting heart disease, improving body composition, and helping promote muscle gain and fat loss because of its abilities to promote protein synthesis in the body.
Targets(IC50)	Endogenous Metabolite

## Solubility Information

Solubility	Methanol: 0.1 g/mL, Sonication is recommended. DMSO: 5 mg/mL (42.68 mM), Sonication is recommended. H <sub>2</sub> O: 50 mg/mL (426.8 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	8.5361 mL	42.6803 mL	85.3606 mL
5 mM	1.7072 mL	8.5361 mL	17.0721 mL
10 mM	0.8536 mL	4.268 mL	8.5361 mL
50 mM	0.1707 mL	0.8536 mL	1.7072 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.

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

- Kim DH, et al. Effect of betaine on hepatic insulin resistance through FOXO1-induced NLRP3 inflammasome. J Nutr Biochem. 2017 Apr 22;45:104-114.
- Shim K S, Hwang Y H, Jang S A, et al. Water Extract of Lysimachia christinae Inhibits Trabecular Bone Loss and Fat Accumulation in Ovariectomized Mice. Nutrients. 2020, 12(7): 1927
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- Chen Y, Xie J, Wu M, et al. Ginseng-Epimedii formula ameliorated experimental Sjögren's syndrome via reducing IL-6 production. Journal of Functional Foods. 2024, 116: 106198.

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