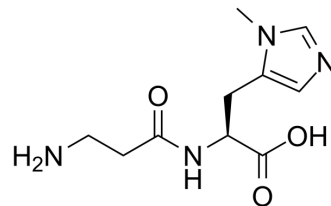


## Anserine

Cat. No.:	HY-113354
CAS No.:	584-85-0
Molecular Formula:	C <sub>10</sub> H <sub>16</sub> N <sub>4</sub> O <sub>3</sub>
Molecular Weight:	240.26
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	H <sub>2</sub> O : 100 mg/mL (416.22 mM; Need ultrasonic)					
	DMSO : < 1 mg/mL (ultrasonic) (insoluble or slightly soluble)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		4.1622 mL	20.8108 mL	41.6216 mL
5 mM			0.8324 mL	4.1622 mL	8.3243 mL	
	10 mM		0.4162 mL	2.0811 mL	4.1622 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (416.22 mM); Clear solution; Need ultrasonic					

### BIOLOGICAL ACTIVITY

Description	Anserine, a methylated form of Carnosine, is an orally active, natural Histidine-containing dipeptide found in skeletal muscle of vertebrates. Anserine is not cleaved by serum carnosinase and act as biochemical buffers, chelators, antioxidants, and anti-glycation agents. Anserine improves memory functions in Alzheimer's disease (AD)-model mice <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	Human Endogenous Metabolite
In Vivo	Anserine (drinking water at a concentration of 2.0 g/L (equivalent to 10 mg/mouse); for 8 weeks) completely recovers the memory deficits, improves pericyte coverage on endothelial cells in the brain, and diminishes chronic glial neuroinflammatory reactions in AβPPswe/PSEN1dE9 Alzheimer's disease (AD) model mice over 18-months old <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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- [1]. Boldyrev AA, et al. The histidine-containing dipeptides, carnosine and anserine: distribution, properties and biological significance. *Adv Enzyme Regul.* 1990;30:175-94.
- [2]. Jun Kaneko, et al. Anserine (beta-alanyl-3-methyl-L-histidine) improves neurovascular-unit dysfunction and spatial memory in aged A $\beta$ PPswe/PSEN1dE9 Alzheimer's-model mice. *Sci Rep.* 2017 Oct 3;7(1):12571.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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