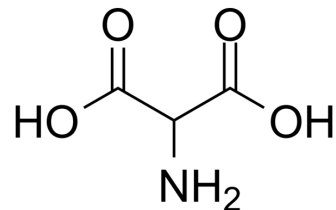


## Aminomalonic acid

Cat. No.:	HY-112052		
CAS No.:	1068-84-4		
Molecular Formula:	C <sub>3</sub> H <sub>5</sub> NO <sub>4</sub>		
Molecular Weight:	119.08		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

In Vitro	H <sub>2</sub> O : 8.33 mg/mL (69.95 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	8.3977 mL	41.9886 mL	83.9772 mL
		5 mM	1.6795 mL	8.3977 mL	16.7954 mL
10 mM		0.8398 mL	4.1989 mL	8.3977 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: PBS Solubility: 5 mg/mL (41.99 mM); Clear solution; Need ultrasonic and warming and heat to 60°C				

### BIOLOGICAL ACTIVITY

Description	Aminomalonic acid is an amino endogenous metabolite, acts as a strong inhibitor of L-asparagine synthetase from Leukemia 5178Y/AR (K <sub>i</sub> = 0.0023 M) and mouse pancreas (K <sub>i</sub> = 0.0015 M) in vitro. Aminomalonic acid is a potential biomarker to discriminate between different stages of melanoma metastasis <sup>[1][2][3]</sup> .
IC <sub>50</sub> & Target	Human Endogenous Metabolite

### REFERENCES

[1]. Van Buskirk JJ, et al. Aminomalonic acid: identification in Escherichia coli and atherosclerotic plaque. Proc Natl Acad Sci U S A. 1984 Feb;81(3):722-5.

[2]. Milman HA, et al. Aminomalonic acid and its congeners as potential in vivo inhibitors of L-asparagine synthetase. Enzyme. 1979;24(1):36-47.

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

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