α-Methyl-DL-aspartic acid

Cat. No.: HY-W142119

CAS No.: 2792-66-7

Molecular Formula: $C_5H_9NO_4$

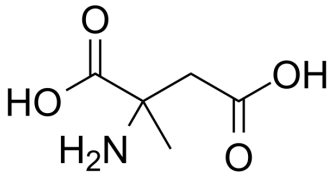
Molecular Weight: 147.13

Target: Others

Pathway: Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (339.84 mM; Need ultrasonic)

Preparing Stock Solutions

Mass / Solvent / Concentration	1 mg	5 mg	10 mg
1 mM	6.7967 mL	33.9836 mL	67.9671 mL
5 mM	1.3593 mL	6.7967 mL	13.5934 mL
10 mM	0.6797 mL	3.3984 mL	6.7967 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

α-Methyl-DL-aspartic acid is a specific inhibitor of argininosuccinate synthase (ASS), and also is the rate-limiting enzyme for the recycling of 1-citrulline to 1-arginine[1].

In Vitro

α-methyl-dl-aspartic acid can significantly reduce the anti-hypertensive activity of Bj-BPP-10c in SHR[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

α-methyl-dl-aspartic acid (147 mg/kg, i.v.) can diminish the l-citrulline-induced retinal vasodilation in Wistar rats[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Wistar rats
Dosage:	147 mg/kg
Administration:	147 mg/kg, i.v.

Result:	Attenuated the increase of retinal arteriolar diameter induced by L-citrulline.

REFERENCES

[1]. Asami Mori, et al. l-Citrulline dilates rat retinal arterioles via nitric oxide- and prostaglandin-dependent pathways in vivo. J Pharmacol Sci. 2015 Apr;127(4):419-23.

[2]. Juliano R Guerreiro, et al. Argininosuccinate synthetase is a functional target for a snake venom anti-hypertensive peptide: role in arginine and nitric oxide production. J Biol Chem. 2009 Jul 24;284(30):20022-33.

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

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