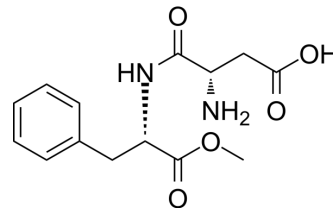


Aspartame

Cat. No.:	HY-B0361
CAS No.:	22839-47-0
Molecular Formula:	C ₁₄ H ₁₈ N ₂ O ₅
Molecular Weight:	294.3
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture
	Powder -80°C 2 years
	-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (84.95 mM; Need ultrasonic)
H₂O : 5 mg/mL (16.99 mM; Need ultrasonic)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		3.3979 mL	16.9895 mL	33.9789 mL
	5 mM		0.6796 mL	3.3979 mL	6.7958 mL
	10 mM		0.3398 mL	1.6989 mL	3.3979 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 18.33 mg/mL (62.28 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (8.49 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (8.49 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (8.49 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Aspartame (SC-18862) is a methyl ester of a dipeptide. Aspartame can be used as a synthetic nonnutritive sweetener^{[1][2]}.

In Vitro

Aspartame is composed of phenylalanine (an important role in neurotransmitter regulation), aspartic acid (an excitatory neurotransmitter in the central nervous system) and methanol^[2].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Aspartame (4000 mg/kg bw/day; p.o.) shows no adverse effect in acute, subacute and chronic toxicity studies with aspartame, and its decomposition products, conducted in mice, rats, hamsters and dogs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Magnuson, B.A., et al., Aspartame: a safety evaluation based on current use levels, regulations, and toxicological and epidemiological studies. Crit Rev Toxicol, 2007. 37(8): p. 629-727.
- [2]. Humphries, P., E. Pretorius, and H. Naude, Direct and indirect cellular effects of aspartame on the brain. Eur J Clin Nutr, 2008. 62(4): p. 451-62.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA