# Aspartame

Cat. No.: CAS No.: Molecular Formula: Molecular Weight: Target: Pathway:	HY-B0361 22839-47-0 C <sub>14</sub> H <sub>18</sub> N <sub>2</sub> O <sub>5</sub> 294.3 Others Others			HN HN NH <sub>2</sub> O
Pathway: Storage:	Others Sealed stora Powder * In solvent :	nge, away -80°C -20°C : -80°C, 6	r from moisture 2 years 1 year months; -20°C, 1 month (sealed storage, away from moisture)	O O

# SOLVENT & SOLUBILITY

In Vitro	DMSO : 25 mg/mL (84.95 mM; Need ultrasonic) H <sub>2</sub> O : 5 mg/mL (16.99 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg		
		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 sol	ubility information to select the app	propriate solvent.				
In Vivo	<ol> <li>Add each solvent one by one: PBS Solubility: 18.33 mg/mL (62.28 mM); Clear solution; Need ultrasonic</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% DEC200 &gt;&gt; 5% Twoon 80 &gt;&gt; 45% caling</li> </ol>						
	Solubility: $\geq$ 2.5 mg/mL (8.49 mM); Clear solution						
	3. 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						
	4. Add each solvent o Solubility: ≥ 2.5 mg	one by one: 10% DMSO >> 90% cor g/mL (8.49 mM); Clear solution	n oil				

	TV			
Description	Aspartame (SC-18862) is a methyl ester of a dipeptide. Aspartame can be used as a synthetic nonnutritive sweetener <sup>[1][2]</sup> .			
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 <sup>[2]</sup> .			

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Product Data Sheet



	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 <sup>[1]</sup> . 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.

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