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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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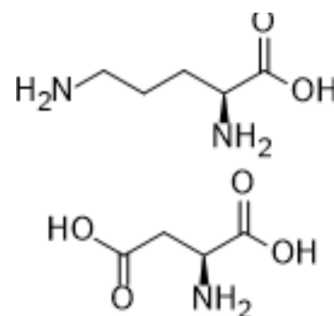
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L-Ornithine L-aspartate

Cat. No.:	HY-A0282
CAS No.:	3230-94-2
Molecular Formula:	C ₉ H ₁₉ N ₃ O ₆
Molecular Weight:	265.26
Target:	Others
Pathway:	Others
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 ₂ O : 250 mg/mL (942.47 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		3.7699 mL	18.8494 mL	37.6989 mL
		5 mM		0.7540 mL	3.7699 mL	7.5398 mL
		10 mM		0.3770 mL	1.8849 mL	3.7699 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (188.49 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	L-Ornithine L-aspartate is a stable salt of two natural nonessential L-amino acids with oral activity: ornithine and aspartic acid. L-Ornithine L-aspartate lowers blood ammonia concentration and to eliminate symptoms of hepatic encephalopathy associated with liver cirrhosis. L-Ornithine L-aspartate also improves mitochondrial functions ^{[1][2][3][4]} .
In Vitro	L-Ornithine L-aspartate (5 mM, 24 h) increases the redox activity of mitochondria in SH-SY5Y cells, and counteracts ROT- and 6-OHDA- induced mitochondrial depolarization ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	L-Ornithine L-aspartate (300 mg/kg/h, i.v. infusions) prevents ammonia-precipitated coma in portal-systemic encephalopathy (PSE) rats ^[2] . L-Ornithine L-aspartate (2 g/kg, p.o. for 10 days) protects Thioacetamide (HY-Y0698)-induced hepatic damage in rats ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Thioacetamide (250 mg/kg, i.p. for 2 days) induced hepatopathy in rats ^[3]
Dosage:	2 g/kg
Administration:	p.o. for 10 days
Result:	Restored hepatic architecture and lobular structure in rat liver sections (histological evaluation). Reduced levels of AST, ALT, ALKP, BRN, and tissue TBARS concentration.

REFERENCES

- [1]. Rose C, et al. L-ornithine-L-aspartate in experimental portal-systemic encephalopathy: therapeutic efficacy and mechanism of action. *Metab Brain Dis.* 1998 Jun;13(2):147-57.
- [2]. Najmi AK, et al. Effect of l-ornithine l-aspartate against thioacetamide-induced hepatic damage in rats. *Indian J Pharmacol.* 2010 Dec;42(6):384-7.
- [3]. Sisalli MJ, et al. L-Ornithine L-Aspartate Restores Mitochondrial Function and Modulates Intracellular Calcium Homeostasis in Parkinson's Disease Models. *Cells.* 2022 Sep 17;11(18):2909.
- [4]. Sikorska H, et al. [Physiological functions of L-ornithine and L-aspartate in the body and the efficacy of administration of L-ornithine-L-aspartate in conditions of relative deficiency]. *Pol Merkur Lekarski.* 2010 Jun;28(168):490-5.

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

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