



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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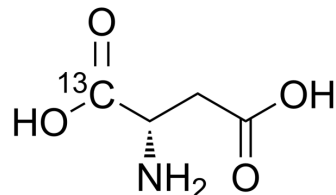
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## L-Aspartic acid-<sup>13</sup>C

<b>Cat. No.:</b>	HY-N0666S		
<b>CAS No.:</b>	81201-97-0		
<b>Molecular Formula:</b>	C <sub>3</sub> <sup>13</sup> CH <sub>7</sub> NO <sub>4</sub>		
<b>Molecular Weight:</b>	134		
<b>Target:</b>	Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 5 mg/mL (37.31 mM; ultrasonic and warming and heat to 60°C)  
 DMSO : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	7.4627 mL	37.3134 mL	74.6269 mL
	5 mM	1.4925 mL	7.4627 mL	14.9254 mL
	10 mM	0.7463 mL	3.7313 mL	7.4627 mL

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

#### In Vivo

1. Add each solvent one by one: PBS  
 Solubility: 2 mg/mL (14.93 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

### BIOLOGICAL ACTIVITY

#### Description

L-Aspartic acid-<sup>13</sup>C is a <sup>13</sup>C labeled L-Aspartic acid. L-Aspartic acid is an amino acid, shown to be a suitable proagent for colon-specific agent delivery<sup>[1][2]</sup>.

#### In Vitro

L-Aspartic acid is shown to be a suitable prodrug for colon-specific drug delivery<sup>[1]</sup>. L-[3H]Asp remaining in the brain at 5 min is increased by 206 and 178% by preadministration of 100 mM L-Aspartic acid and 100 mM L-Glu, respectively, whereas 100 mM D-Asp does not affect L-[3H]Asp efflux transport. That value for L-[3H]Glu at 20 min is increased by 145 and 156% by coadministration with 100 mM L-Aspartic acid and 100 mM L-Glu, respectively, but not by D-Asp. It is interesting that the apparent efflux rate of L-Aspartic acid across the BBB is sevenfold faster than that of L-Glu<sup>[2]</sup>.

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

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## REFERENCES

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- [1]. Leopold CS, et al. In vivo pharmacokinetic study for the assessment of poly(L-aspartic acid) as a drug carrier for colon-specific drug delivery. J Pharmacokinet Biopharm. 1995 Aug;23(4):397-406.
- [2]. Hosoya K, et al. Blood-brain barrier produces significant efflux of L-aspartic acid but not D-aspartic acid: in vivo evidence using the brain efflux index method. J Neurochem. 1999 Sep;73(3):1206-11.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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