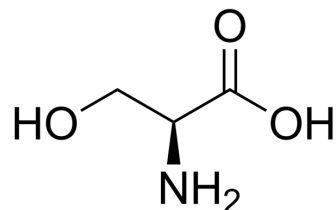


L-Serine

Cat. No.:	HY-N0650		
CAS No.:	56-45-1		
Molecular Formula:	C ₃ H ₇ NO ₃		
Molecular Weight:	105.09		
Target:	Endogenous Metabolite; Bacterial		
Pathway:	Metabolic Enzyme/Protease; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (475.78 mM; Need ultrasonic)
 Methanol : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	9.5157 mL	47.5783 mL	95.1565 mL
5 mM	1.9031 mL	9.5157 mL	19.0313 mL
10 mM	0.9516 mL	4.7578 mL	9.5157 mL

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

In Vivo

1. Add each solvent one by one: PBS
 Solubility: 100 mg/mL (951.57 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

L-Serine ((-)-Serine; (S)-Serine), one of the so-called non-essential amino acids, plays a central role in cellular proliferation.

IC₅₀ & Target

Microbial Metabolite Human Endogenous Metabolite

In Vitro

L-Serine is the predominant source of one-carbon groups for the de novo synthesis of purine nucleotides and deoxythymidine monophosphate. In cell cultures, L-Serine is a conditionally essential amino acid, because it cannot be synthesized in sufficient quantities to meet the cellular demands for its utilization. L-Serine and the products of its metabolism have been recognized not only to be essential for cell proliferation but also to be necessary for specific functions in the central nervous system^[1].

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

CUSTOMER VALIDATION

- Acta Pharm Sin B. 2022 Sep;12(9):3618-3638.
- Redox Biol. 2024 Mar 4;71:103112.
- Research Square Print. 2022 May.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. de Koning TJ, et al. L-Serine in disease and development. Biochem J. 2003 May 1;371(Pt 3):653-61.

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

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