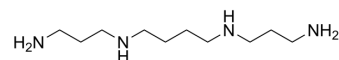


## Spermine

<b>Cat. No.:</b>	HY-B1777
<b>CAS No.:</b>	71-44-3
<b>Molecular Formula:</b>	C <sub>10</sub> H <sub>26</sub> N <sub>4</sub>
<b>Molecular Weight:</b>	202.34
<b>Target:</b>	Endogenous Metabolite; Influenza Virus
<b>Pathway:</b>	Metabolic Enzyme/Protease; Anti-infection
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	H <sub>2</sub> O : 125 mg/mL (617.77 mM; Need ultrasonic)					
	<b>Preparing Stock Solutions</b>	<b>Solvent</b> \ <b>Concentration</b>	<b>Mass</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>1 mM</b>		4.9422 mL	24.7109 mL	49.4218 mL
		<b>5 mM</b>		0.9884 mL	4.9422 mL	9.8844 mL
		<b>10 mM</b>		0.4942 mL	2.4711 mL	4.9422 mL
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (494.22 mM); Clear solution; Need ultrasonic					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Spermine (NSC 268508) functions directly as a free radical scavenger to protect DNA from free radical attack. Spermine has antiviral effects.	
<b>IC<sub>50</sub> &amp; Target</b>	Microbial Metabolite	Human Endogenous Metabolite
<b>In Vitro</b>	Spermine (NSC 268508) at physiologically relevant concentrations inhibits ROS-induced DNA damage, with maximal inhibition observed at 1 to 2 mM. These concentrations are well within the estimates for the physiological concentrations of spermine <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

### CUSTOMER VALIDATION

- Basic Res Cardiol. 2021 Dec 16;116(1):65.
- Acta Physiol. 2023 Jan 6;e13926.
- Virus Res. 2022 Feb 11;312:198708.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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- [1]. Ha HC, et al. The natural polyamine spermine functions directly as a free radical scavenger. Proc Natl Acad Sci U S A. 1998 Sep 15;95(19):11140-5.
- [2]. Mounce BC, et al. Polyamines and Their Role in Virus Infection. Microbiol Mol Biol Rev. 2017 Sep 13;81(4). pii: e00029-17.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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