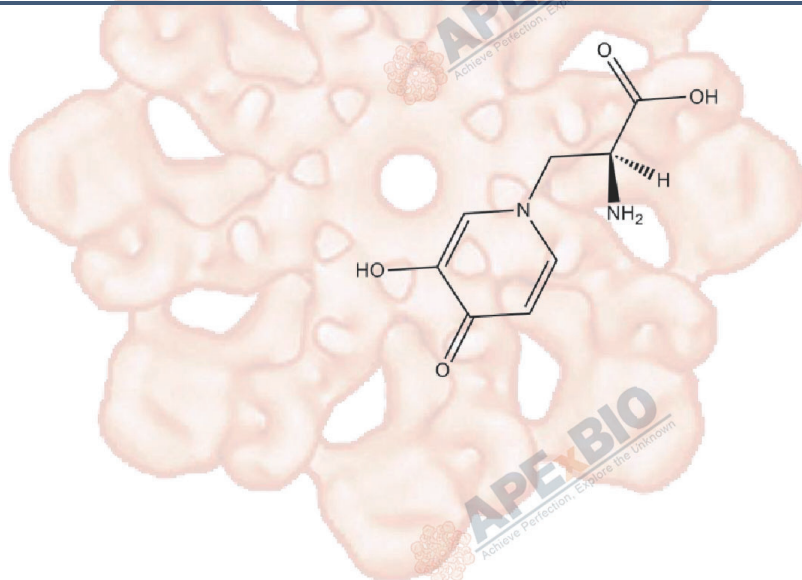


# Product Data Sheet

## L-Mimosine

<b>Cat. No.:</b>	B4751
<b>CAS No.:</b>	500-44-7
<b>Formula:</b>	C <sub>8</sub> H <sub>10</sub> N <sub>2</sub> O <sub>4</sub>
<b>M.Wt:</b>	198.18
<b>Synonyms:</b>	
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<b>Storage:</b>	Desiccate at -20°C



## Solvent & Solubility

insoluble in DMSO; insoluble in EtOH;  $\geq 1.98$  mg/mL in H<sub>2</sub>O with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	5.0459 mL	25.2296 mL	50.4592 mL
	<b>5 mM</b>	1.0092 mL	5.0459 mL	10.0918 mL
	<b>10 mM</b>	0.5046 mL	2.5230 mL	5.0459 mL

Please refer to the solubility information to select the appropriate solvent

## Biological Activity

Shortsummary

iron chelator and prolyl 4-hydroxylase inhibitor

IC<sub>50</sub> & Target

In Vitro

### Cell Viability Assay

Cell Line: LNCaP and PC-3 cell lines

Preparation method:

The solubility of this compound in DMSO is limited. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions:

0–800  $\mu$ M for 48h

	Applications:	In [3H]thymidine incorporation assay, inhibition of PC-3 cell growth occurred initially at 50 $\mu$ M of L-mimosine, increasing as the dose increased. The 400 $\mu$ M of L-mimosine significantly blocked 97% of [3H]thymidine incorporation in PC-3 cells after treatment with L-mimosine for 48 h.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Sprague-Dawley rats
	Dosage form:	50 mg/kg/day, i.p. for 2 wk
	Applications:	In rat, the PHD inhibitor L-mimosine upregulated HIF-1 $\alpha$ expression in the kidneys, especially in the renal medulla, and remarkably enhanced the natriuretic response to renal perfusion pressure.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

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

## References

- [1] Chung LC, Tsui KH, Feng TH, et al. L-Mimosine blocks cell proliferation via upregulation of B-cell translocation gene 2 and N-myc downstream regulated gene 1 in prostate carcinoma cells. *American Journal of Physiology-Cell Physiology*, 2012, 302(4): C676-C685.
- [2] Li N, Yi F, Sundy CM, et al. Expression and actions of HIF prolyl-4-hydroxylase in the rat kidneys. *American Journal of Physiology-Renal Physiology*, 2007, 292(1): F207-F216.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.*



## APExBIO Technology

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