## Letosteine

MedChemExpress

Cat. No.:	HY-107355		
CAS No.:	53943-88-7		
Molecular Formula:	C <sub>10</sub> H <sub>17</sub> NO <sub>4</sub> S <sub>2</sub>		
Molecular Weight:	279.38		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month

### SOLVENT & SOLUBILITY

### In Vitro

 $\mathsf{DMSO}: 11.11~\mathsf{mg}/\mathsf{mL}$  (39.77 mM; ultrasonic and adjust pH to 12 with 1M NaOH)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.5794 mL	17.8968 mL	35.7935 mL
	5 mM	0.7159 mL	3.5794 mL	7.1587 mL
	10 mM	0.3579 mL	1.7897 mL	3.5794 mL

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

BIOLOGICAL ACTIVITY					
Description	Letosteine is an orally active, potent and safe expectorant. Letosteine dissolves bronchial mucus and reduces respiratory inflammation symptoms, and restores gas exchanges and natural defense mechanisms in the lung. Letosteine can be used for acute or chronic respiratory diseases (such as bronchopneumopathies) research[1][2][3].				
In Vivo	Letosteine (Sprague-Dawley rats, 20 mg/kg, IV or Orally, once) is rapidly excreted with mainly in urine <sup>[4]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.				
	Animal Model:	Sprague-Dawley rats			
	Dosage:	20 mg/kg			
	Administration:	IV or Orally, once			
	Result:	Rapidly was excreted with mainly in urine. More than 86% of the administered [ <sup>14</sup> C]- radioactivity was recovered in urine within 72 h, 5-7% of the administered [ <sup>14</sup> C]-			

# Product Data Sheet

radioactivity was recovered as  $^{14}\mathrm{CO}_2$  in the expired air.

### REFERENCES

[1]. Jia L. Letosteine. John Wiley & Sons, Ltd, 2014.

[2]. Macquet V, et al. A new contribution to the treatment of chronic bronchopneumopathies: letosteine. Lille Med. 1979;24(9):735-738.

[3]. Zhou Y, et al. Efficacy and safety of letosteine in the treatment of sputum thickening and expectoration difficulty in patients with respiratory diseases: a multicenter, randomized, double-masked, double dummy, positive drug parallel controlled trial. Pha

[4]. Gachon F, et al. Disposition and metabolism of letosteine in rats. Drug Metab Dispos. 1988;16(6):853-857.

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

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