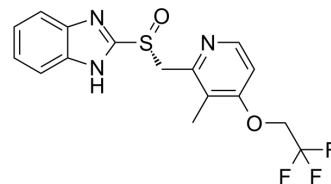


(R)-Lansoprazole

Cat. No.:	HY-13662B		
CAS No.:	138530-94-6		
Molecular Formula:	C ₁₆ H ₁₄ F ₃ N ₃ O ₂ S		
Molecular Weight:	369.36		
Target:	Proton Pump		
Pathway:	Membrane Transporter/Ion Channel		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (270.74 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.7074 mL	13.5369 mL	27.0739 mL
	5 mM	0.5415 mL	2.7074 mL	5.4148 mL
	10 mM	0.2707 mL	1.3537 mL	2.7074 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (6.77 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (6.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(R)-Lansoprazole is the R enantiomer of Lansoprazole, Lansoprazole (AG 1749) is an orally active proton pump inhibitor which prevents the stomach from producing acid. Lansoprazole (AG 1749) is a potent brain penetrant neutral sphingomyelinase (N-SMase) inhibitor (exosome inhibitor)^{[1][2]}.

In Vitro

The plasma concentrations of (R)-lansoprazole are remarkably higher in all three CYP2C19 genotype groups than those of the corresponding (S)-enantiomer. The AUC_{0-∞} C_{max} and elimination half-life of (R)-lansoprazole are significantly greater and longer, respectively, than those of the (S)-enantiomer for all three genotype groups^[3].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- SLAS Discov. 2020 Sep;25(8):895-905.
- bioRxiv. 2020 Jun.

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REFERENCES

- [1]. Kokufu, T., et al., Effects of lansoprazole on pharmacokinetics and metabolism of theophylline. Eur J Clin Pharmacol, 1995. 48(5): p. 391-5.
- [2]. Huarui Zhang, et al. Advances in the discovery of exosome inhibitors in cancer. J Enzyme Inhib Med Chem. 2020 Dec;35(1):1322-1330.
- [3]. M Miura, et al. Pharmacokinetic differences between the enantiomers of lansoprazole and its metabolite, 5-hydroxylansoprazole, in relation to CYP2C19 genotypes. Eur J Clin Pharmacol. 2004 Nov;60(9):623-8.
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Caution: Product has not been fully validated for medical applications. For research use only.

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