



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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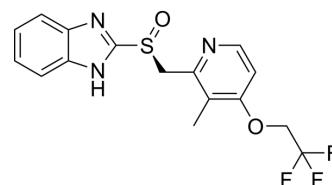
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## (S)-Lansoprazole

Cat. No.:	HY-13662C
CAS No.:	138530-95-7
Molecular Formula:	C <sub>16</sub> H <sub>14</sub> F <sub>3</sub> N <sub>3</sub> O <sub>2</sub> S
Molecular Weight:	369.36
Target:	Proton Pump; Phospholipase; Bacterial
Pathway:	Membrane Transporter/Ion Channel; Metabolic Enzyme/Protease; Anti-infection
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (338.42 mM; Need ultrasonic)

Concentration	Solvent	Mass	1 mg	5 mg	10 mg
			1 mg	5 mg	10 mg
Preparing Stock Solutions	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.

### BIOLOGICAL ACTIVITY

#### Description

(S)-Lansoprazole (Levolansoprazole) is an isoform of Lansoprazole (HY-13662), which 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)<sup>[1][2]</sup>.

#### In Vitro

Lansoprazole from 0.3 to 3 μM inhibits gastric acid formation in a concentration-dependent manner (IC<sub>50</sub> of 0.76 μM)<sup>[4]</sup>. ?Lansoprazole (30-300 μM) both induced concentration-dependent, reversible and reproducible relaxations of arteries<sup>[5]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Lansoprazole (20-40 mg/kg) treatment significantly attenuated STZ and HFD -induced memory deficits, biochemical and histopathological alterations<sup>[3]</sup>.  
Lansoprazole (20 mg/kg and 40 mg/kg, p.o.) significantly reduces the STZ and HFD- induced increase in AChE activity<sup>[3]</sup>.  
Lansoprazole (20 mg/kg and 40 mg/kg, p.o.) significantly reduces the STZ and HFD- induced rise in brain MPO level<sup>[3]</sup>.  
Further HFD mice treated with lansoprazole (20 mg/kg and 40 mg/kg, p.o.) shows a marked decrease in the body weight in comparison to the control animals<sup>[3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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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]. Rupinder K Sodhi, et al. Defensive effect of lansoprazole in dementia of AD type in mice exposed to streptozotocin and cholesterol enriched diet. *PLoS One*. 2013 Jul 31;8(7):e70487.
- [4]. Jun Matsukawa, et al. A comparative study on the modes of action of TAK-438, a novel potassium-competitive acid blocker, and lansoprazole in primary cultured rabbit gastric glands. *Biochem Pharmacol*. 2011 May 1;81(9):1145-51.
- [5]. Erdinc Naseri, et al. Proton pump inhibitors omeprazole and lansoprazole induce relaxation of isolated human arteries. *Eur J Pharmacol*. 2006 Feb 15;531(1-3):226-31.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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