

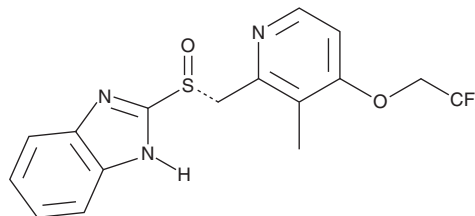
PRODUCT INFORMATION



(R)-Lansoprazole

Item No. 18235

CAS Registry No.: 138530-94-6
Formal Name: 2-[(R)-[3-methyl-4-(2,2,2-trifluoroethoxy)-2-pyridinyl]methyl]sulfinyl]-1H-benzimidazole
Synonyms: (+)-Lansoprazole, T-168390, TAK-390
MF: C₁₆H₁₄F₃N₃O₂S
FW: 369.4
Purity: ≥98%
UV/Vis.: λ_{max}: 284 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(R)-Lansoprazole is supplied as a crystalline solid. A stock solution may be made by dissolving the (R)-lansoprazole in the solvent of choice, which should be purged with an inert gas. (R)-Lansoprazole is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (R)-lansoprazole in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

(R)-Lansoprazole is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (R)-lansoprazole should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. (R)-Lansoprazole has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Lansoprazole (Item No. 13627) is a proton pump inhibitor that irreversibly inactivates the H⁺/K⁺-stimulated ATPase pumps in parietal cells, inhibiting gastric acid secretion and increasing intragastric pH.¹ It is a 1:1 racemic mixture of (R)-lansoprazole and (S)-lansoprazole, both of which are pharmacologically active.² (R)-Lansoprazole is an enantiomerically pure form of lansoprazole. It can inhibit acid formation in isolated canine parietal cells with an IC₅₀ value of 59 nM and inhibit the H⁺/K⁺-ATPase with an IC₅₀ value of 4.2 μM.²

References

- Schubert, M.L. Pharmacotherapy for acid/peptic disorders. *Yale J. Biol. Med.* **69**, 197-201 (1996).
- Nagaya, H., Inatomi, N., Nohara, A., *et al.* Effects of the enantiomers of lansoprazole (AG-1749) on (H⁺K⁺)-ATPase activity in canine gastric microsomes and acid formation in isolated canine parietal cells. *Biochem. Pharmacol.* **42(10)**, 1875-1878 (1991).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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