

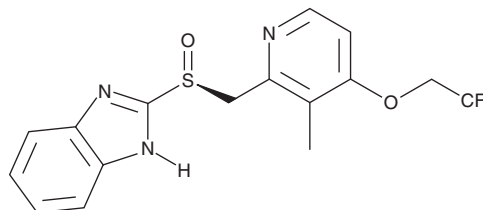
# PRODUCT INFORMATION



## (S)-Lansoprazole

Item No. 21967

**CAS Registry No.:** 138530-95-7  
**Formal Name:** 2-[(S)-[[3-methyl-4-(2,2,2-trifluoroethoxy)-2-pyridinyl]methyl]sulfinyl]-1H-benzimidazole  
**Synonym:** (-)-Lansoprazole  
**MF:** C<sub>16</sub>H<sub>14</sub>F<sub>3</sub>N<sub>3</sub>O<sub>2</sub>S  
**FW:** 369.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 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

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

(S)-Lansoprazole is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (S)-lansoprazole should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. (S)-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

(S)-Lansoprazole is a proton pump inhibitor that irreversibly inhibits H<sup>+</sup>/K<sup>+</sup>-stimulated ATPase pumps in parietal cells (IC<sub>50</sub> = 5.2 μM), inhibiting gastric acid secretion and increasing intragastric pH.<sup>1</sup> It also inhibits acid formation in isolated canine parietal cells (IC<sub>50</sub> = 82 μM). (S)-Lansoprazole is an enantiomerically pure form of lansoprazole (Item No. 13627). Both (S)- and (R)-lansoprazole (Item No. 18235) are pharmacologically active with similar potencies.<sup>1</sup>

### Reference

1. Schubert, M.L. Pharmacotherapy for acid/peptic disorders. *Yale J. Biol. Med.* **69**, 197-201 (1996).

#### 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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