

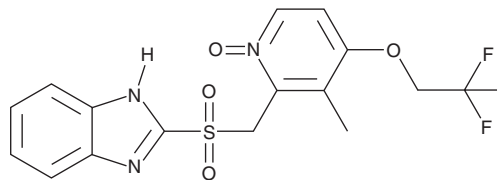
# PRODUCT INFORMATION



## Lansoprazole sulfone N-oxide

Item No. 35450

**CAS Registry No.:** 953787-54-7  
**Formal Name:** 2-[[[3-methyl-1-oxido-4-(2,2,2-trifluoroethoxy)-2-pyridinyl]methyl]sulfonyl]-1H-benzimidazole  
**MF:** C<sub>16</sub>H<sub>14</sub>F<sub>3</sub>N<sub>3</sub>O<sub>4</sub>S  
**FW:** 401.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 277 nm  
**Supplied as:** A 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

Lansoprazole sulfone N-oxide is supplied as a solid. A stock solution may be made by dissolving the lansoprazole sulfone N-oxide in the solvent of choice, which should be purged with an inert gas. Lansoprazole sulfone N-oxide is soluble in organic solvents such as DMSO, and dimethyl formamide. The solubility of lansoprazole sulfone N-oxide in these solvents is approximately 5 and 1 mg/ml, respectively.

### Description

Lansoprazole sulfone N-oxide is a potential impurity found in commercial preparations of the proton pump inhibitor lansoprazole.<sup>1</sup> It is a degradation product formed under oxidative conditions.<sup>2</sup>

### References

1. Reddy, G.M., Mukkanti, K., Kumar, T.L., *et al.* Synthesis and characterization of metabolites and potential impurities of lansoprazole, an antiulcerative drug. *Synth. Com.* **38(20)**, 3477-3489 (2008).
2. Shankar, G., Borkar, R.M., Suresh, U., *et al.* Forced degradation studies of lansoprazole using LC-ESI HRMS and 1 H-NMR experiments: *In vitro* toxicity evaluation of major degradation products. *J. Mass. Spectrom.* **52(7)**, 459-471 (2017).

#### 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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