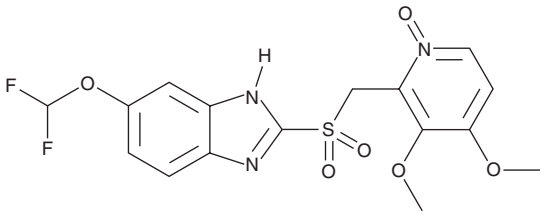
PRODUCT INFORMATION

Pantoprazole sulfone N-oxide

Item No. 35199

CAS Registry No.:	953787-55-8
Formal Name:	6-(difluoromethoxy)-2-[[(3,4-dimethoxy-1-oxido-2-pyridinyl)methyl]sulfonyl]-1H-benzimidazole
MF:	$C_{16}H_{15}F_2N_3O_6S$
FW:	415.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 279 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Pantoprazole sulfone N-oxide is supplied as a crystalline solid. A stock solution may be made by dissolving the pantoprazole sulfone N-oxide in the solvent of choice, which should be purged with an inert gas. Pantoprazole sulfone N-oxide is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of pantoprazole sulfone N-oxide in these solvents is approximately 3 and 13 mg/ml, respectively. Pantoprazole sulfone N-oxide is also slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of pantoprazole sulfone N-oxide can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of pantoprazole sulfone N-oxide in PBS (pH 7.2) is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Pantoprazole sulfone N-oxide is a potential impurity found in bulk preparations of the proton pump inhibitor pantoprazole.[1]

Reference

1. Reddy, G.M., Bhaskar, B.V., Reddy, P.P., *et al.* Structural identification and characterization of potential impurities of pantoprazole sodium. *J. Pharm. Biomed. Anal.* **45(2)**, 201-210 (2007).

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