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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION



Omeprazole-d₃

Item No. 22087

CAS Registry No.: 934293-92-2

Formal Name: 6-methoxy-2-[(4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole-4,5,7-d₃

Synonyms: OMEP-d₃, OMP-d₃, OMZ-d₃

MF: C₁₇H₁₆D₃N₃O₃S

FW: 348.4

Chemical Purity: ≥98% (Omeprazole)

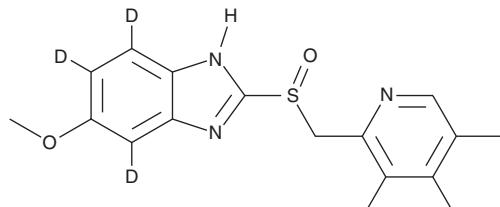
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀

Supplied as: A solid

Storage: Room temperature

Stability: ≥3 years



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

Laboratory Procedures

Omeprazole-d₃ is intended for use as an internal standard for the quantification of omeprazole (Item No. 14880) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Description

Omeprazole is a selective and irreversible inhibitor of the gastric H⁺/K⁺ ATPase pump (IC₅₀ = 1.1 μM).¹ It is a racemic mixture of two enantiomers, S-omeprazole (esomeprazole magnesium; Item No. 17326) and R-omeprazole, which are prodrugs of the active sulfonamide which is formed by acid-stimulated conversion.^{2,3} Both enantiomers are extensively metabolized by the cytochrome P450 (CYP) isomers CYP2C19 and CYP3A4.³

References

- Smolka, A.J., Goldenring, J.R., Gupta, S., et al. Inhibition of gastric H,K-ATPase activity and gastric epithelial cell IL-8 secretion by the pyrrolizine derivative ML 3000. *BMC Gastroenterol.* **4**(4), 1-11 (2004).
- Richardson, P., Hawkey, C.J., and Stack, W.A. Proton pump inhibitors. Pharmacology and rationale for use in gastrointestinal disorders. *Drugs* **56**(3), 307-335 (1998).
- Shi, S. and Klotz, U. Proton pump inhibitors: An update of their clinical use and pharmacokinetics. *Eur. J. Clin. Pharmacol.* **64**(10), 935-951 (2008).

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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