

Product Data Sheet

Product Name: 5-hydroxy Omeprazole

Cat. No.: GC41312

Chemical Properties

Cas. No. 92340-57-3

Chemical Name 4-methoxy-6-[[[(6-methoxy-1H-benzimidazol-2-yl)sulfinyl]methyl]-5-methyl-3-pyridinemethanol

SMILES COC1=CC=C2C(N=C(S(CC3=C(C)C(OC)=C(CO)C=N3)=O)N2[H])=C1

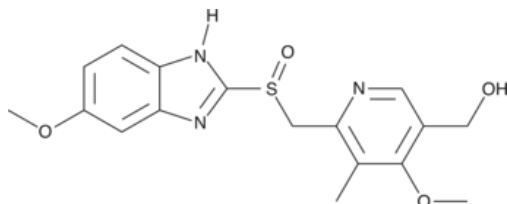
Formula C₁₇H₁₉N₃O₄S M.Wt 361.4

Solubility 10mg/mL in DMSO, 20mg/mL in DMF, 2mg/mL in Ethanol Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

5-hydroxy Omeprazole is a major metabolite of omeprazole, an inhibitor of the gastric H⁺/K⁺-ATPase pump.[1] 5-hydroxy Omeprazole is produced from omeprazole by the action of cytochrome P450 (CYP) isoform 2C19, a monooxygenase. [2][3] CYP2C19 polymorphisms significantly influence the metabolism of omeprazole, and individuals may be classified as homozygous extensive metabolizers, heterozygous extensive metabolizers, and poor metabolizers.[1]

Reference:

[1]. 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).

[2]. Abelö, A., Andersson, T.B., Antonsson, M., et al. Stereoselective metabolism of omeprazole by

Caution: Product has not been fully validated for medical applications. For research use only.

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human cytochrome P450 enzymes. Drug Metab. Dispos. 28(8), 966-972 (2000).

[3]. Karam, W.G., Goldstein, J.A., Lasker, J.M., et al. Human CYP2C19 is a major omeprazole 5-hydroxylase, as demonstrated with recombinant cytochrome P450 enzymes. Drug Metab. Dispos. 24, 1081-1087 (1996).

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