

Product Data Sheet

Product Name: Hydroxymetronidazole

Cat. No.: GC49832

Chemical Properties

Cas. No. 4812-40-2

SMILES OCC1=NC=C([N+])([O-])=O)N1CCO

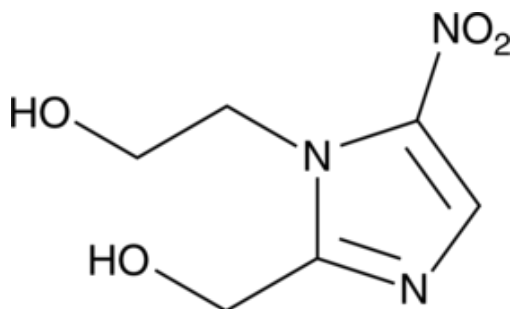
Formula $C_6H_9N_3O_4$ M.Wt 187.2

Solubility DMSO: slightly soluble, Methanol: slightly soluble Storage Store at -20°C, protect from light

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

Hydroxymetronidazole is an active metabolite of the antibiotic metronidazole.¹ It is formed from metronidazole primarily by the cytochrome P450 (CYP) isoform CYP2A6.² Hydroxymetronidazole is active against *B. fragilis*, *B. thetaiotaomicron*, *B. distasonis*, and *B. ovatus* (MICs = 1, 2, 1, and 2 µg/ml, respectively).¹ It has been found in pork and porcine plasma.³

1. Pendland, S.L., Piscitelli, S.C., Schreckenberger, P.C., et al. In vitro activities of metronidazole and its hydroxy metabolite against *Bacteroides* spp. *Antimicrob. Agents Chemother.* 38(9):2106-2110 (1994)

2. Pearce, R.E., Cohen-Wolkowicz, M., Sampson, M.R., et al. The role of human cytochrome P450 enzymes in the formation of 2-hydroxymetronidazole: CYP2A6 is the high affinity (low Km)

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

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catalystDrug Metab. Dispos.41(9)1686-1694(2013) 3.TOlgyesi, A., Sharma, V.K., Fekete, S., et al.Development of a rapid method for the determination and confirmation of nitroimidazoles in six matrices by fast liquid chromatography-tandem mass spectrometryJ. Pharm. Biomed. Anal.64-6540-48(2012)

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