

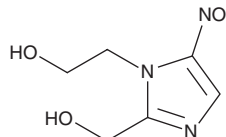
PRODUCT INFORMATION



Hydroxymetronidazole

Item No. 35249

CAS Registry No.: 4812-40-2
Formal Name: 2-(hydroxymethyl)-5-nitro-1H-imidazole-1-ethanol
Synonym: hydroxy-MNZ
MF: C₆H₉N₃O₄
FW: 187.2
Purity: ≥95%
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

Hydroxymetronidazole is supplied as a solid. A stock solution may be made by dissolving the hydroxymetronidazole in the solvent of choice, which should be purged with an inert gas. Hydroxymetronidazole is slightly soluble in methanol and DMSO.

Description

Hydroxymetronidazole is an active metabolite of the antibiotic metronidazole (Item No. 9002409).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

References

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 K_m) catalyst. *Drug Metab. Dispos.* **41(9)**, 1686-1694 (2013).
3. Tölgyesi, 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 spectrometry. *J. Pharm. Biomed. Anal.* **64-65**, 40-48 (2012).

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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