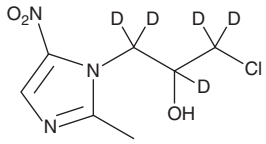
PRODUCT INFORMATION

Ornidazole-d_5

Item No. 33810

CAS Registry No.: 2747915-64-4
Formal Name: α-(chloro(methyl-d_2))-2-methyl-5-nitro-1H-imidazole-1-ethan-α,β,β-d_3-ol
Synonym: (±)-Ornidazole-d_5
MF: $C_7H_5D_5ClN_3O_3$
FW: 224.7
Chemical Purity: ≥98% (Ornidazole)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_5); ≤1% d_0
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

Ornidazole-d_5 is intended for use as an internal standard for the quantification of ornidazole (Item No. 26818) 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).

Ornidazole-d_5 is supplied as a solid. A stock solution may be made by dissolving the ornidazole-d_5 in the solvent of choice, which should be purged with an inert gas. Ornidazole-d_5 is soluble in methanol and DMSO.

Description

Ornidazole is an orally bioavailable 5-nitroimidazole derivative with antibacterial and antiprotozoal activities.[1,2] Ornidazole inhibits the growth of clinical isolates of *B. fragilis* (MICs = 0.5-5 µM) and various anaerobic bacteria when used at concentrations ranging from less than 0.1 to 3.2 µg/ml.[2,3] It also inhibits the growth of *Giardia* isolates (IC_{50}s = 0.01-0.47 µg/ml).[4] Oral administration of ornidazole reduces *T. vaginalis* and *T. foetus* infection in mice and *E. histolytica* infection in rats with curative dose (CD_{50}) values of 37, 3, and 10 mg/kg, respectively.[1] Ornidazole (400 mg/kg per day) induces infertility in male rats within 7 days and inhibits spermatozoa binding to rat oocyte zona pellucida.[5,6]

References

1. Hoffer, M. and Grunberg, E. *J. Med. Chem.* **17(9)**, 1019-1020 (1974).
2. Jokipii, L. and Jokipii, A.M. *Antimicrob. Agents Chemother.* **28(4)**, 561-564 (1985).
3. Wüst, J. *Antimicrob. Agents Chemother.* **11(4)**, 631-637 (1977).
4. Majewska, A.C., Kasprzak, W., De Jonckheere, J.F., *et al. Trans. R. Soc. Trop. Med. Hyg.* **85(1)**, 67-69 (1991).
5. Oberländer, G., Yeung, C.H., and Cooper, T.G. J. *Reprod. Fertil.* **100(2)**, 551-559 (1994).
6. Bone, W., Jones, N.G., Kamp, G., *et al. J. Reprod. Fertil.* **118(1)**, 127-135 (2000).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM