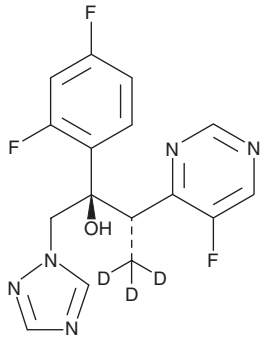
PRODUCT INFORMATION

Voriconazole-d_3

Item No. 17803

CAS Registry No.: 1217661-14-7
Formal Name: (2R,3S)-2-(2,4-difluorophenyl)-3-(5-fluoropyrimidin-4-yl)-1-(1H-1,2,4-triazol-1-yl)butan-4,4,4-d_3-2-ol
Synonym: VRC-d_3
MF: $C_{16}H_{11}D_3F_3N_5O$
FW: 352.3
Chemical Purity: ≥98% Voriconazole
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_3); ≤1% d_0
UV/Vis.: λ_{max}: 205, 255 nm
Supplied as: A crystalline 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

Voriconazole-d_3 is intended for use as an internal standard for the quantification of voriconazole (Item No. 15633) 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).

Voriconazole-d_3 is supplied as a crystalline solid. A stock solution may be made by dissolving the voriconazole-d_3 in the solvent of choice, which should be purged with an inert gas. Voriconazole-d_3 is soluble in organic solvents such as ethanol and DMSO. The solubility of voriconazole-d_3 in these solvents is approximately 20 mg/ml.

Description

Voriconazole is a triazole antifungal agent and a derivative of fluconazole (Item No. 11594).[1,2] It is active against a variety of yeast and fungi, including clinical isolates of *A. flavus*, *A. fumigatus*, *F. oxysporum*, *F. solani*, *C. albicans*, and *C. neoformans* (MICs = <0.03-16 µg/ml).[1] Voriconazole is also active against 56 clinical isolates of fluconazole-resistant *C. albicans* (MICs = 0.015-8 µg/ml).[2] It inhibits ergosterol biosynthesis in *C. albicans*, *C. glabrata*, *A. fumigatus*, and *A. flavus* (IC_{50}s = 0.03-1 µg/ml).[3] Voriconazole (10 mg/kg twice per day, i.v.) decreases the number of lung colony-forming units (CFUs), reduces alveolar collapse and lung inflammatory cell infiltration and necrosis, and increases survival in a rat model of invasive pulmonary aspergillosis.[4] Formulations containing voriconazole have been used in the treatment of fungal infections.

References

1. Espinel-Ingroff, A. *J. Clin. Microbiol.* **36(1)**, 198-202 (1998).
2. Cuenca-Estrella, M., Díaz-Guerra, T.M., Mellado, E., *et al. Eur. J. Clin. Microbiol. Infect. Dis.* **18(6)**, 432-435 (1999).
3. Munayyer, H.K., Mann, P.A., Chau, A.S., *et al. Antimicrob. Agents Chemother.* **48(10)**, 3690-3696 (2004).
4. Zhang, M., Su, X., Sun, W.-K., *et al. Mycopathologia* **177(1-2)**, 11-18 (2014).

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