

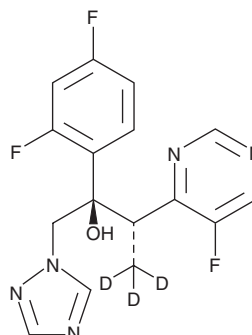
PRODUCT INFORMATION



Voriconazole-d₃

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-d₃-2-ol
Synonym: VRC-d₃
MF: C₁₆H₁₁D₃F₃N₅O
FW: 352.3
Chemical Purity: ≥98% Voriconazole
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
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-d₃ 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-d₃ is supplied as a crystalline solid. A stock solution may be made by dissolving the voriconazole-d₃ in the solvent of choice, which should be purged with an inert gas. Voriconazole-d₃ is soluble in organic solvents such as ethanol and DMSO. The solubility of voriconazole-d₃ 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* (IC₅₀s = 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).

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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