

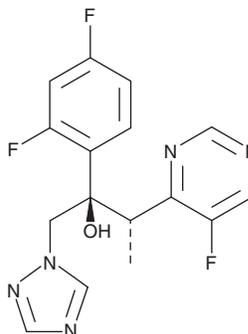
PRODUCT INFORMATION



Voriconazole

Item No. 15633

CAS Registry No.: 137234-62-9
Formal Name: (αR)-α-(2,4-difluorophenyl)-5-fluoro-βS-methyl-α-(1H-1,2,4-triazol-1-ylmethyl)-4-pyrimidineethanol
Synonyms: DRG 0301, UK 109496, VRC
MF: C₁₆H₁₄F₃N₅O
FW: 349.3
Purity: ≥98%
UV/Vis.: λ_{max}: 256 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 is supplied as a crystalline solid. A stock solution may be made by dissolving the voriconazole in the solvent of choice, which should be purged with an inert gas. Voriconazole is soluble in organic solvents such as ethanol and DMSO. The solubility of voriconazole 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. In vitro activity of the new triazole voriconazole (UK-109,496) against opportunistic filamentous and dimorphic fungi and common and emerging yeast pathogens. *J. Clin. Microbiol.* **36(1)**, 198-202 (1998).
2. Cuenca-Estrella, M., Díaz-Guerra, T.M., Mellado, E., et al. Comparative in vitro activity of voriconazole and itraconazole against fluconazole-susceptible and fluconazole-resistant clinical isolates of *Candida* species from Spain. *Eur. J. Clin. Microbiol. Infect. Dis.* **18(6)**, 432-435 (1999).
3. Munayyer, H.K., Mann, P.A., Chau, A.S., et al. Posaconazole is a potent inhibitor of sterol 14α-demethylation in yeasts and molds. *Antimicrob. Agents Chemother.* **48(10)**, 3690-3696 (2004).
4. Zhang, M., Su, X., Sun, W.-K., et al. Efficacy of the combination of voriconazole and caspofungin in experimental pulmonary aspergillosis by different *Aspergillus* species. *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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