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-pyrimidinethanol
Synonyms: DRG 0301, UK 109496, VRC
MF: C_{16}H_{14}F_{3}N_{5}O
FW: 349.3
Purity: ≥98%
UV/Vis.: λ_{max}: 256 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 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 (IC\textsubscript{50} = 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