

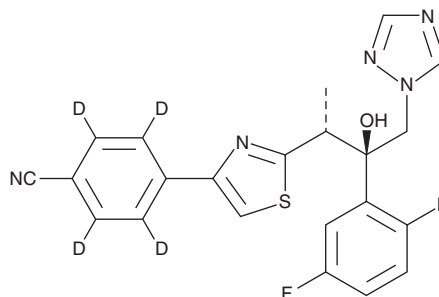
PRODUCT INFORMATION



Isavuconazole-d₄

Item No. 30079

CAS Registry No.: 1346598-58-0
Formal Name: 4-(2-((2R,3R)-3-(2,5-difluorophenyl)-3-hydroxy-4-(1H-1,2,4-triazol-1-yl)butan-2-yl)thiazol-4-yl)benzonitrile-2,3,5,6-d₄
MF: C₂₂H₁₃D₄F₂N₅OS
FW: 441.5
Chemical Purity: ≥90% (Isavuconazole)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
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

Isavuconazole-d₄ is intended for use as an internal standard for the quantification of isavuconazole (Item No. 26211) 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).

Isavuconazole-d₄ is supplied as a solid. A stock solution may be made by dissolving the isavuconazole-d₄ in the solvent of choice, which should be purged with an inert gas. Isavuconazole-d₄ is soluble in acetonitrile.

Description

Isavuconazole is a broad-spectrum triazole antifungal agent.¹ It inhibits the growth of clinical isolates of *A. fumigatus*, *A. terreus*, *A. flavus*, and *A. lentulus* (MIC₉₀s = 0.39, 0.39, 2, and 0.25 mg/L, respectively) as well as *C. albicans*, *C. krusei*, and *C. parapsilosis* (MIC₅₀s = 0.03, 0.06, and 0.03 mg/L, respectively).¹⁻⁴ Isavuconazole also inhibits the growth of several other fungal species, including clinical isolates of *C. neoformans* and *C. gattii* (MIC₉₀s = 0.032 and 0.125 mg/L, respectively).^{1,3} Formulations containing isavuconazole have been used in the treatment of invasive aspergillosis and mucormycosis.

References

1. Yamazaki, T., Inagaki, Y., Fujii, T., et al. In vitro activity of isavuconazole against 140 reference fungal strains and 165 clinically isolated yeasts from Japan. *Int. J. Antimicrob. Agents* **36**(4), 324-331 (2010).
2. Rudramurthy, S.M., Chakrabarti, A., Geertsens, E., et al. In vitro activity of isavuconazole against 208 *Aspergillus flavus* isolates in comparison with 7 other antifungal agents: Assessment according to the methodology of the European Committee on Antimicrobial Susceptibility Testing. *Diagn. Microbiol. Infect. Dis.* **71**(4), 370-377 (2011).
3. Datta, K., Rhee, P., Byrnes, E., III, et al. Isavuconazole activity against *Aspergillus lentulus*, *Neosartorya udagawae*, and *Cryptococcus gattii*, emerging fungal pathogens with reduced azole susceptibility. *J. Clin. Microbiol.* **51**(9), 3090-3093 (2013).
4. Astvad, K.M.T., Hare, R.K., and Arendrup, M.C. Evaluation of the *in vitro* activity of isavuconazole and comparator voriconazole against 2635 contemporary clinical *Candida* and *Aspergillus* isolates. *Clin. Microbiol. Infect.* **23**(11), 882-887 (2017).

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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