

PRODUCT INFORMATION

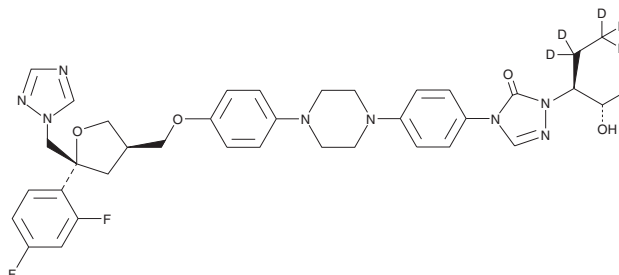


Posaconazole-d₅

Item No. 22376

CAS Registry No.: 2649530-57-2
Formal Name: 4-(4-(4-(4-(((3R,5R)-5-((1H-1,2,4-triazol-1-yl)methyl)-5-(2,4-difluorophenyl)tetrahydrofuran-3-yl)methoxy)phenyl)piperazin-1-yl)phenyl)-2-((2S,3S)-2-hydroxypentan-3-yl)-4,4,5,5,5-d₅)-2,4-dihydro-3H-1,2,4-triazol-3-one

Synonym: POS-d₅
MF: C₃₇H₃₇D₅F₂N₈O₄
FW: 705.8
Chemical Purity: ≥98% (Posaconazole)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤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

Posaconazole-d₅ is intended for use as an internal standard for the quantification of posaconazole (Item No. 14737) 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).

Posaconazole-d₅ is supplied as a solid. A stock solution may be made by dissolving the posaconazole-d₅ in the solvent of choice, which should be purged with an inert gas. Posaconazole-d₅ is soluble in the organic solvent acetonitrile.

Description

Posaconazole is a broad-spectrum triazole antifungal agent active against various yeasts and molds, including *Aspergillus*, *Candida*, *Fusarium*, and *Zygomycetes*.¹ Posaconazole inhibits the growth of fungi by inhibiting the lanosterol 14 α -demethylase enzyme (IC₅₀S = 7-200 nM), which results in a disruption in the synthesis of ergosterol (Item No. 19850), a key sterol necessary for fungal cell membrane integrity and for the function of certain membrane-bound proteins.²

References

- Herbrecht, R., Nivoix, Y., Fohrer, C., *et al.* Management of systemic fungal infections: Alternatives to itraconazole. *J. Antimicrob. Chemother.* **56(Suppl 1)**, i39-i48 (2005).
- Munayyer, H.K., Mann, P.A., Chau, A.S., *et al.* Posaconazole is a potent inhibitor of sterol 14 α -demethylation in yeasts and molds. *Antimicrob. Agents Chemother.* **48(10)**, 3690-3696 (2004).

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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