Product Data Sheet

Miconazole-d5 nitrate (2,4-Dichlorobenzyloxy-d5)

Cat. No.: HY-B0454AS CAS No.: 1398065-80-9 Molecular Formula: $C_{18}H_{10}D_5Cl_4N_3O_4$

Molecular Weight: 484.17

Target: Fungal; Bacterial; Antibiotic

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Miconazole-d5 nitrate (2,4-Dichlorobenzyloxy-d5) is the deuterium labeled Miconazole nitrate. Miconazole nitrate (R18134 nitrate) is an imidazole antifungal agent. Miconazole nitrate also has antibacterial effects ^[2] .
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Nenoff P, et al. New insights on the antibacterial efficacy of miconazole in vitro. Mycoses. 2017 Aug;60(8):552-557.

[3]. http://en.wikipedia.org/wiki/Miconazole

Caution: Product has not been fully validated for medical applications. For research use only.

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