

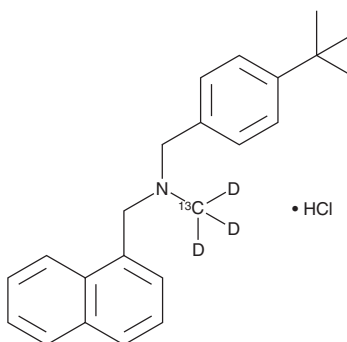
PRODUCT INFORMATION



Butenafine-¹³C-d₃ (hydrochloride)

Item No. 34010

CAS Registry No.: 2909036-24-2
Formal Name: N-[[4-(1,1-dimethylethyl)phenyl]methyl]-N-(methyl-¹³C-d₃)-1-naphthalenemethanamine, monohydrochloride
MF: C₂₂[¹³C]H₂₄D₃N • HCl
FW: 357.9
Chemical Purity: ≥95% (Butenafine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤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

Butenafine-¹³C-d₃ (hydrochloride) is intended for use as an internal standard for the quantification of butenafine (Item No. 23797) 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).

Butenafine-¹³C-d₃ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the butenafine-¹³C-d₃ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Butenafine-¹³C-d₃ (hydrochloride) is soluble in methanol, DMSO, and dimethyl formamide.

Description

Butenafine is a benzylamine antifungal agent that has broad-spectrum activity against 87 strains of dermatophytes (MICs = 0.0015-0.05 µg/ml), 15 strains of *Aspergillus* (MICs = 0.025-0.78 µg/ml), 4 strains of *Cryptococcus* (MICs = 0.78-1.56 µg/ml), and 67 strains of *Candida* (MICs = 3.13 to >100 µg/ml).¹ It acts by inhibiting squalene epoxidase.² Butenafine (50 µM) inhibits the synthesis of ergosterol (Item No. 19850), a sterol in the cell membranes of fungi. Formulations containing butenafine have been used in the treatment of tinea pedis, tinea corporis, and tinea cruris.

References

1. Maeda, T., Takase, M., Ishibashi, A., *et al.* Synthesis and antifungal activity of butenafine hydrochloride (KP-363), a new benzylamine antifungal agent. *Yakugaku Zasshi* **111**(2), 126-137 (1991).
2. Hiratani, T., Asagi, Y., and Yamaguchi, H. Studies on antifungal mechanism of action of butenafine hydrochloride. II. Comparison in the response to drug treatment between a wild-type strain and tolclate-resistant mutant strains of *Sporothrix schenckii*. *Nihon Ishinkin Gakkai Zasshi* **32**(2), 139-149 (1991).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM