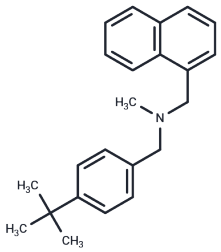
Data Sheet (Cat.No.T21365)

TargetMol

Butenafine

Chemical Properties



CAS No. : 101828-21-1

Formula: C23H27N

Molecular Weight: 317.47

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Butenafine (KP363) is a broad-spectrum benzamide antifungal agent that can inhibit the biosynthesis of ergosterol in fungi and interfere with the formation of fungal cell membranes, and can be used to prevent skin fungal infections.
Targets(IC50)	Antifungal
In vitro	Butenafine demonstrates comparable activity against the dermatophytes with a MIC range of 0.03-0.25 μg/ml. It displays limited activity against the yeast Candida albicans and no activity against Malassezia furfur[1]. Butenafine (25; 50 or 100 μM) eliminates the promastigote forms of L. amazonensis and L. braziliensis in a dose-dependent manner, and shows EC50 values of 34.10±3.76 μM and 81.25±10.24 μM, respectively, in peritoneal macrophages from BALB/c mice[1]. Butenafine induces mild cytotoxicity in peritoneal macrophages from BALB/c mice with a CC50 of 97.88 μM[1].
In vivo	In primary therapeutic studies on guinea pigs, Butenafine (1% topical application; 4-10 days; day 3 and 4 post-infection) exhibits a complete cure after 10 days in vivo-effect on dermatophytosis, T. mentagrophytes[1]. Butenafine (0.125, 0.25, 0.5 and 1.0% topical application; q.d. or b.i.d. for 10 days; day 4 post-infection) exhibits a 100% cure after 0.5% or 1% application and has no difference in efficacy between 1% q.d. and b.i.d. in vivo-effect on dermatophytosis, T. mentagrophytes[1].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble), DMSO: Soluble,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1499 mL	15.7495 mL	31.499 mL
5 mM	0.630 mL	3.1499 mL	6.2998 mL
10 mM	0.315 mL	1.575 mL	3.1499 mL
50 mM	0.063 mL	0.315 mL	0.630 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kokjohn K, et al. Evaluation of in vitro activity of ciclopirox olamine, butenafine HCl and econazole nitrate against dermatophytes, yeasts and bacteria. Int J Dermatol. 2003;42 Suppl 1:11-17.

Bezerra-Souza A, et al. The antifungal compound butenafine eliminates promastigote and amastigote forms of Leishmania (Leishmania) amazonensis and Leishmania (Viannia) braziliensis. Parasitol Int. 2016;65(6 Pt A):702-707.

Ely JW, Rosenfeld S, Seabury Stone M. Diagnosis and management of tinea infections. Am Fam Physician. 2014;90 (10):702-710.

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