

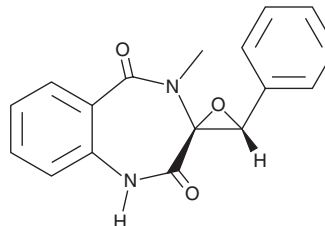
PRODUCT INFORMATION



Cyclopenin

Item No. 23145

CAS Registry No.: 20007-87-8
Formal Name: *rel*-(-)-4-methyl-3'S-phenyl-spiro[3H-1,4-benzodiazepine-3,2'R-oxirane]-2,5(1H,4H)-dione
Synonyms: (-)-Cyclopenin, NSC 114538, NSC 604989
MF: C₁₇H₁₄N₂O₃
FW: 294.3
Purity: ≥98%
UV/Vis.: λ_{max}: 213 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Fungus/*Penicillium* sp.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Cyclopenin is supplied as a solid. A stock solution may be made by dissolving the cyclopenin in the solvent of choice, which should be purged with an inert gas. Cyclopenin is soluble in the organic solvent DMSO.

Description

Cyclopenin is an inhibitor of acetylcholinesterase (AChE; IC₅₀ = 2.04 μM for human recombinant AChE) that is produced by *Penicillium*.¹⁻³ It exhibits greater than 2,000-fold selectivity over recombinant equine butyrylcholinesterase with an IC₅₀ value greater than 4,080 μM.⁴ Cyclopenin also has antibacterial activity against *E. coli* and *M. pyogenes*.¹

References

1. Bracken, A., Pocker, A., and Raistrick, H. Studies in the biochemistry of microorganisms. 93. Cyclopenin, a nitrogen-containing metabolic product of *Penicillium cyclopium* westling. *Biochem. J.* **57(4)**, 587-595 (1954).
2. Nover, L. and Luckner, M. On the biosynthesis of cyclopenin and cyclophenol, benzodiazepine alkaloids from *Penicillium cyclopium* westling. *Eur. J. Biochem.* **10(2)**, 268-273 (1969).
3. Frisvad, J.C., Filtenborg, O., and Wicklow, D.T. Terverticillate penicillia isolated from underground seed caches and cheek pouches of banner-tailed kangaroo rats (*Dipodomys spectabilis*). *Can. J. Bot.* **65(4)**, 765-773 (1987).
4. Kuno, F., Otoguro, K., Shiomi, K., et al. Arisugacins A and B, novel and selective acetylcholinesterase inhibitors from *Penicillium* sp. FO-4259. I. Screening, taxonomy, fermentation, isolation and biological activity. *J. Antibiot. (Tokyo)* **49(8)**, 742-747 (1996).

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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