

PRODUCT INFORMATION



Thielavin B

Item No. 18770

CAS Registry No.: 71950-67-9
Formal Name: 4-[(2,4-dihydroxy-3,6-dimethylbenzoyl)oxy]-2-methoxy-3,5,6-trimethyl-4-carboxy-3-methoxy-2,5,6-trimethylphenyl ester, benzoic acid

MF: C₃₁H₃₄O₁₀

FW: 566.6

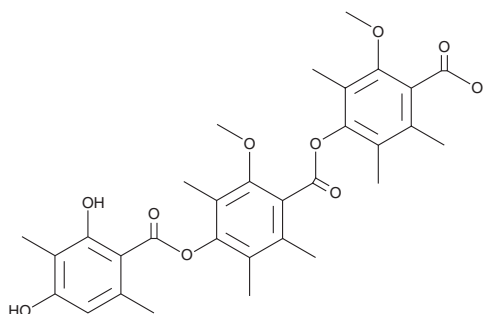
Purity: ≥95%

Supplied as: A powder

Storage: -20°C

Stability: ≥2 years

Item origin: Fungi/Unidentified



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

Laboratory Procedures

Thielavin B is supplied as a powder. A stock solution may be made by dissolving the thielavin B in the solvent of choice. Thielavin B is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

Description

Thielavin B is a fungal metabolite that contains *O*-substituted salicylic acid.¹ It inhibits cyclooxygenase, blocking both the conversion of arachidonic acid (Item No. 90010) to Prostaglandin H₂ (PGH₂) (Item No. 17020) and the conversion of PGH₂ to PGE₂ (Item No. 14010, IC₅₀s = 40 and 9 μM, respectively).² Thielavin B also inhibits the reverse transcriptase of avian myeloblastosis virus, bacterial transglycosylases, and telomerase activity.³⁻⁵

References

1. Kitahara, N., Haruyama, H., Hata, T., *et al.* The structures of thielavins A, B and C. Prostaglandin synthetase inhibitors from fungi. *J. Antibiot. (Toyko)* **36(5)**, 599-600 (1983).
2. Kitahara, N., Endo, A., Furuya, K., *et al.* Thielavin A and B, new inhibitors of prostaglandin biosynthesis produced by *Thielavia terricola*. *J. Antibiot. (Toyko)* **34(12)**, 1562-1568 (1981).
3. Take, Y., Inouye, Y., and Nakamura, S. Comparative studies of the inhibitory properties of antibiotics on human immunodeficiency virus and avian myeloblastosis virus reverse transcriptases and cellular DNA polymerases. *J. Antibiot. XLII(1)*, 107-115 (1989).
4. Mani, N., Sancheti, P., Jiang, Z.D., *et al.* Screening systems for detecting inhibitors of cell wall transglycosylation in *Enterococcus*. Cell wall transglycosylation inhibitors in *Enterococcus*. *J. Antibiot. (Toyko)* **51(5)**, 471-479 (1998).
5. Togashi, K., Ko, H.-R., Ahn, J.-S., *et al.* Inhibition of telomerase activity by fungus metabolites, CRM646-A and thielavin B. *Biosci. Biotechnol. Biochem.* **65(3)**, 651-653 (2001).

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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