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%
Stability: ≥2 years at -20°C
Supplied as: A white powder

Laboratory Procedures

For long term storage, we suggest that thielavin B be stored as supplied at -20°C. It should be stable for at least two years.

Thielavin B is supplied as a white 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, methanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

Thielavin B is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

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, IC₅₀ = 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