

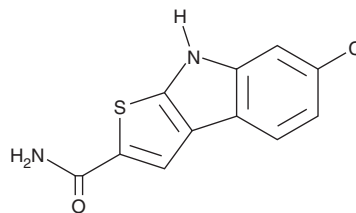
PRODUCT INFORMATION



Thienodolin

Item No. 43837

CAS Registry No.: 149127-27-5
Formal Name: 6-chloro-8H-thieno[2,3-b]indole-2-carboxamide
MF: $C_{11}H_7ClN_2OS$
FW: 250.7
Purity: $\geq 98\%$
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Synthetic



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

Laboratory Procedures

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

Description

Thienodolin is an alkaloid that has been found in *S. albogriseolus*.¹⁻³ It increases root and shoot growth in rice seedlings when used at a concentration of 4 μM but decreases root and shoot growth in rice seedlings at 40 μM .² Thienodolin inhibits LPS-induced nitric oxide (NO) production ($\text{IC}_{50} = 17.2 \mu\text{M}$), reduces LPS-induced increases in inducible NO synthase (iNOS) levels, and prevents LPS-induced I κ B degradation in RAW 264.7 macrophages.³

References

1. Milbredt, D., Patallo, E.P., and van Pée, K.H. Characterization of the aminotransferase ThdN from thienodolin biosynthesis in *Streptomyces albogriseolus*. *Chembiochem.* **17**(19), 1859-1864 (2016).
2. Kanbe, K.A., Okamura, M., Hattori, S., *et al.* Thienodolin, a new plant growth-regulating substance produced by a streptomycete strain: I. Taxonomy and fermentation of the producing strain, and the isolation and characterization of thienodolin. *Biosci. Biotech. Bioch.* **57**(4), 632-635 (1993).
3. Park, E.J., Pezzuto, J.M., Jang, K.H., *et al.* Suppression of nitric oxide synthase by thienodolin in lipopolysaccharide-stimulated RAW 264.7 murine macrophage cells. *Nat. Prod. Commun.* **7**(6), 789-794 (2012).

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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