

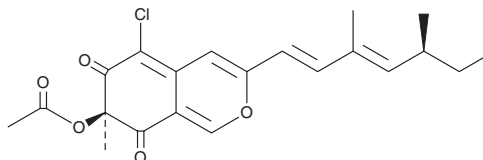
# PRODUCT INFORMATION



## Sclerotiorin

Item No. 89460

**CAS Registry No.:** 549-23-5  
**Formal Name:** 7-(acetyloxy)-5-chloro-3-[(1E,3E,5S)-3,5-dimethyl-1,3-heptadien-1-yl]-7-methyl-6H-2-benzopyran-6,8(7H)-dione  
**MF:** C<sub>21</sub>H<sub>23</sub>ClO<sub>5</sub>  
**FW:** 390.9  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 206, 287, 365 nm  
**Supplied as:** A crystalline 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

Sclerotiorin is supplied as a crystalline solid. A stock solution may be made by dissolving the sclerotiorin in an organic solvent purged with an inert gas. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of sclerotiorin in these solvents is approximately 3, 20, and 30 mg/ml respectively.

Sclerotiorin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, sclerotiorin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Sclerotiorin has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Sclerotiorin is a natural product isolated primarily from *Penicillium* species. It inhibits soybean lipoxygenase-1 with an IC<sub>50</sub> value of 4.2 μM.<sup>1</sup> Sclerotiorin also exhibits a number of other activities including inhibition of cholesterol ester transfer protein (IC<sub>50</sub> = 19.4 μM),<sup>2</sup> inhibition of Grb2-Shc interaction (IC<sub>50</sub> = 22 μM),<sup>3</sup> and antagonism of endothelin receptors (IC<sub>50</sub> = 114 and 152 μM for human ET<sub>A</sub> and ET<sub>B</sub>, respectively).<sup>4</sup>

### References

1. Chidananda, C. and Sattur, A.P. Sclerotiorin, a novel inhibitor of lipoxygenase from *Penicillium frequentans*. *J. Agric. Food Chem.* **55(8)**, 2879-2883 (2007).
2. Tomoda, H., Matsushima, C., Tabata, N., et al. Structure-specific inhibition of cholesterol ester transfer protein by azaphilones. *J. Antibiotics* **52(2)**, 160-170 (1999).
3. Ji-Youn, N., Son, K.-H., Kim, H.-K., et al. Sclerotiorin and isochromophilone IV: Inhibitors of Grb2-Shc interaction, isolated from *Penicillium multicolor* F1753. *J. Microbiol. Biotechnol.* **10(4)**, 544-546 (2000).
4. Pairet, L., Wrigley, S.K., Chetland, I., et al. Azaphilones with endothelin receptor binding activity produced by *Penicillium sclerotiorum*: Taxonomy, fermentation, isolation, structure elucidation and biological activity. *J. Antibiotics* **48(9)**, 913-923 (1995).

#### 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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