Sclerotiorin
Item No. 89460

CAS Registry No.: 549-23-5
Formal Name: 7-(acetylxy)-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_{21}H_{23}ClO_{5}
FW: 390.9

Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \): 206, 287, 365 nm

Supplied as: A crystalline solid

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_{50} value of 4.2 µM. It also exhibits a number of other activities including inhibition of cholesterol ester transfer protein (IC_{50} = 19.4 µM), inhibition of Grb2-Shc interaction (IC_{50} = 22 µM), and antagonism of endothelin receptors (IC_{50} = 114 and 152 µM for human ET\(_A\) and ET\(_B\), respectively).

References