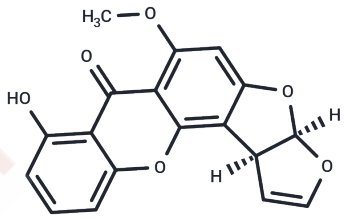
Data Sheet (Cat.No.T16942)

TargetMol

Sterigmatocystine

Chemical Properties



CAS No. : 10048-13-2

Formula: C18H12O6

Molecular Weight: 324.28

Appearance:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Sterigmatocystine is an inhibitor of G1 Phase and DNA synthesis and is used to inhibit p21 activity. Sterigmatocystine is a precursor of aflatoxins and a mycotoxin produced by common mold strains from Aspergillus versicolor.
Targets(IC50)	Others
In vitro	Sterigmatocystine-induced DNA damage activates the ATM/53-dependent signaling pathway, leading to G2 arrest in GES-1 cells [4].
In vivo	Sterigmatocystine (ip; 3 mg/kg once daily for 14 days) suppresses p21WAF1/CIP1 [3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0838 mL	15.4188 mL	30.8375 mL
5 mM	0.6168 mL	3.0838 mL	6.1675 mL
10 mM	0.3084 mL	1.5419 mL	3.0838 mL
50 mM	0.0617 mL	0.3084 mL	0.6168 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Kusunoki M, et al. Long-term administration of the fungus toxin, sterigmatocystin, induces intestinal metaplasia and increases the proliferative activity of PCNA, p53, and MDM2 in the gastric mucosa of aged Mongolian gerbils. Environ Health Prev Med. 2011 Jul;16(4):224-31.

Schroeder HW, et al. Production of sterigmatocystin by some species of the genus Aspergillus and its toxicity to chicken embryos. Appl Microbiol. 1975 Oct;30(4):589-91.

Tong YF, et al. Cyclin-Dependent Kinase Inhibitor p21WAF1/CIP1 Facilitates the Development of CardiacHypertroph. Cell Physiol Biochem. 2017;42(4):1645-1656.

Zhang D, et al. Sterigmatocystin-induced DNA damage triggers G2 arrest via an ATM/p53-related pathway in human gastric epithelium GES-1 cells in vitro. PLoS One. 2013 May 21;8(5):e65044.