Product Data Sheet

Product Name:	O-Methylviridicatin
Cat. No.:	GC14784

Chemical Properties

Cas. No.	6152-57-4		
Chemical Name	3-methoxy-4-phenyl-2(1H)-quinolinone		
SMILES	O=C1NC2=C(C=CC=C2)C(C3=CC=CC=C3)=C1OC		
Formula	$C_{16}H_{13}NO_2$	M.Wt	251.3
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	O-Methylviridicatin		

Background

IC50: 2.5 μM: inhibits virus production in OM-10.1 cells (HL-60 promyelocytes infected with HIV-1) treated with TNF-α.

5 μM: blocks activation of the HIV long terminal repeat by TNF-α in HeLa cells

O-Methylviridicatin, a natural derivative of the alkaloid mycotoxin viridicatin, is produced by several species in the genus, Penicillium. It is demonstrated that O-Methylviridicatin, as an inhibitor, blocks the tumor necrosis factor alpha (TNFα)-induced replication of human immunodeficiency virus (HIV). TNFα increases the binding of the cellular transcription factor NF-κB to the HIV long terminal repeat (LTR), which directly triggers transcription of the latent provirus.

In vitro: O-Methylviridicatin had an inhibitory effect on the TNFα-triggered replication of HIV LTR in HeLa cells. In addition, O-Methylviridicatin dose-dependently dampened virus production in the OM-10.1 cell line, which was measured by the output of p24 core

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antigen into the culture medium. It was demonstrated that the suppressive effect of O-Methylviridicatin was not reversed even if the concentration of TNFα was increased 10-fold [1].

In vivo: Up to now, in vitro study of O-Methylviridicatin is still in the development stage.

Reference:

[1]. Heguy, A., Cai, P., Meyn, P., Houck, D., Russo, S., & Michitsch, R. et al. Isolation and Characterization of the Fungal Metabolite 3-O-Methylviridicatin as an Inhibitor of Tumour Necrosis Factor-Induced Human Immunodeficiency Virus Replication. Antiviral Chemistry and Chemotherapy. 1998; 9(2): 149-155.